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COMPUTER *Currents*

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November 1991

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Windows For The Rest Of Us



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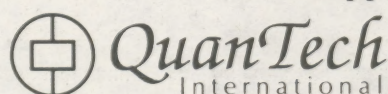


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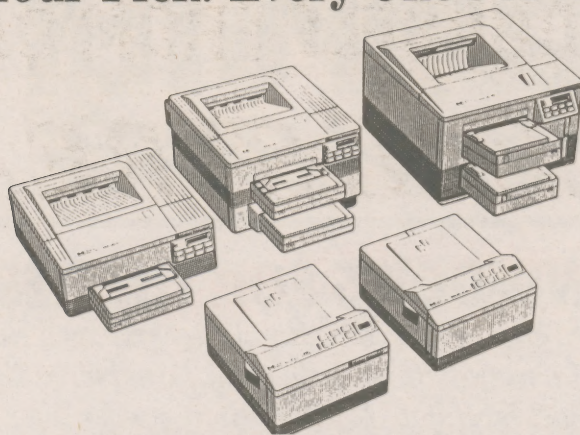
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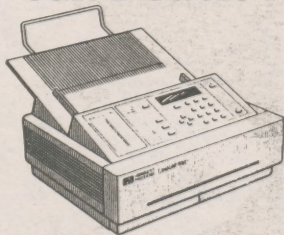
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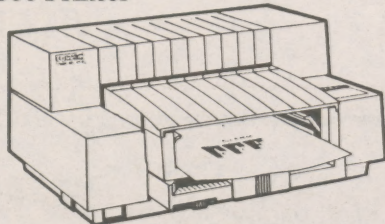
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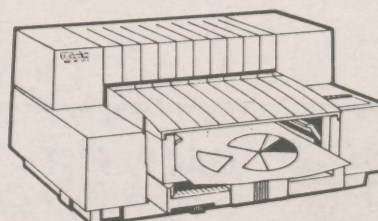
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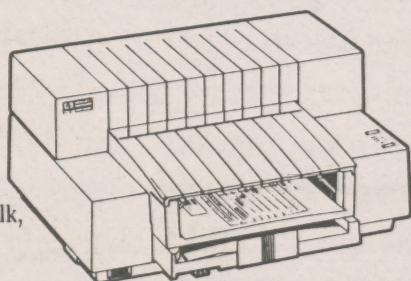
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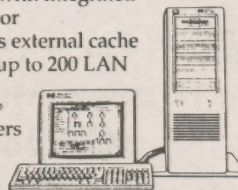
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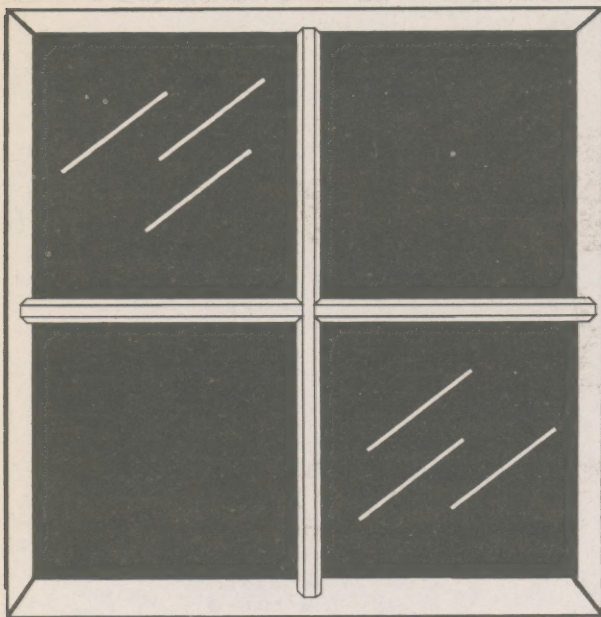
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COMPUTER *Currents*

VOLUME 6
NUMBER 11
NOVEMBER 1991

WINDOWS FOR THE REST OF US

26

Windows has come down to earth as a number of programs designed for ease of use and affordability have answered the call for Windows software for the masses. If you're a less-than-power user looking to get some work done in the Windows environment, check out what our cover story has to show you.

By Lawrence J. Magid

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A sampling of area companies doing Windows development work.

By Marguerite Zientara

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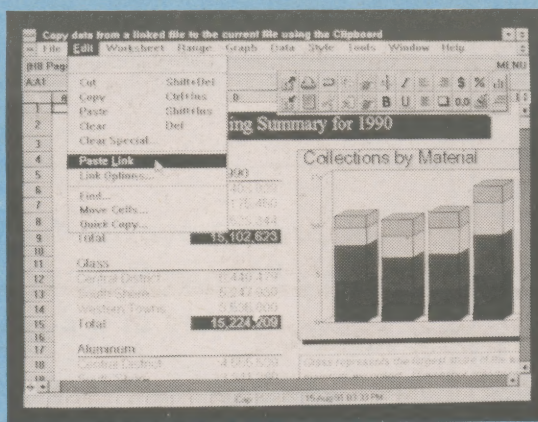
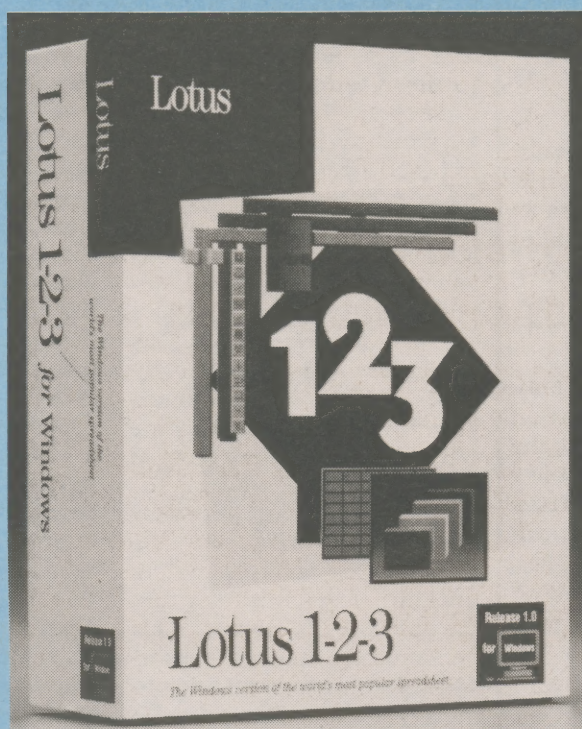
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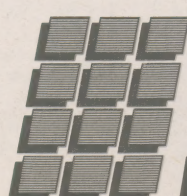
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The giant Comdex computer show is halfway over as I write this. Run by Needham, Mass.-based Interface Group, the event is bigger than ever with more exhibitors, attendees, floor space and hype since, well, last year's show. The topic of this issue's cover story seems particularly appropriate considering the huge presence of Windows at the show, starting with Microsoft's enormous exhibit area and other Windows vendors and products sprinkled liberally throughout the show. Whether or not you agree that Windows has in fact arrived for "the rest of us," it's clearly reached a broad-based constituency. In fact, Microsoft announced that Windows 3 has just topped the 7 million mark in units shipped — an incredible run rate for a product scarcely 1 1/2 years old.

And that momentum is on a worldwide scale. John Hilvert, an editor with *Computerworld Australia*, told me he thinks Windows is even more popular with first-time buyers in Australia than in the U.S., estimating that about 45 percent of all new PCs in Australia are being purchased with Windows, and a large percentage with Windows-based applications. Still, one observation Hilvert makes about Australian buyers sounded all too familiar to me, as it related to buyers here. "I don't think most of the people getting into Windows really understand what they're getting," said Hilvert. "It's a question of comparing a PC with a C> on the screen versus one with the prettiness of Windows — Windows will usually be the choice. But I talk to a lot of small business users who have Windows and it's fascinating to see how little of it they actually use, from not knowing about the enhanced mode, keyboard equivalents, or even proper use of the mouse; a lot of people aren't taking the time to really learn what they've got and take advantage of it."

I expect this to change as products like the ones featured in this issue become more prevalent. Microsoft itself is doing a lot to make the Windows experience more productive. The "Wizards" feature in its most recent new products (see Cover Story, page 26) is a great example of an efficient teaching tool for learning the steps involved in using an application.

Of course the company to first popularize the so-called graphical user interface, or GUI, used by Windows was Apple with its Macintosh. Apple was a big exhibitor at Comdex as well, using it to launch its new PowerBook "notebook" computers (see Tony Bové's First Look, page 35). Apple's notebooks are continued evidence of its ability to innovate within the bounds of long-established technology. Notebook PCs have been available for years, so the PowerBooks are considered to be very late to the party. The other big news in notebook PCs at Comdex, for example, was the introduction of color units by several PC vendors. It may well be years before Apple comes out with a color notebook-sized Mac. Still, as Tony Bové points out in his article, by making its notebooks true Macintosh computers, Apple brings innovations PC notebook vendors can only envy, such as built-in networking features.

The PC market is also branching out in new directions. Portable computers that accept pen input were a hot item at Comdex. Most of these vendors claim they are going after new users, or those that aren't comfortable using a computer keyboard. That's fine, but we'll have to see if the laborious process of hand printing what you want to communicate through the computer is really worth sacrificing the speed of the keyboard. I'm skeptical.

David Needle

LETTERS

Lesser-Known Computing Dangers

Editor:

The *Weekly World News* report that a Philadelphia-area programmer had caught a virus from his computer is another item in the mounting list of anecdotal medical evidence indicating that computers are slowly destroying the health of our society. Actually, all this talk about the destructive effects of radiation from video terminals and carpal tunnel syndrome resulting from repetitive keystrokes is just the tip of the iceberg. After many years of researching the subject in depth, I have identified the following diseases or morbid conditions arising from overuse of computers:

1. *Windows Narcolepsy*: This debilitating condition usually arises when a user tries to run Windows 3.0 on a 286 machine with only 2 megabytes of memory. While waiting for Windows to load, the user sometimes falls into a semicomatose state resembling hypnotic sleep. In many cases, the user loses all control of his neck muscles, his head falls forward, and his face crashes into the keyboard.

2. *Eye Injuries*: An unusual number of eye injuries have been reported among computer users. In most cases, these injuries

have been caused by the user poking himself in the eye with the rims of his glasses while making frequent changes between his reading glasses and his computer glasses.

3. *Download Hemorrhoids*: This embarrassing condition usually occurs when the user tries to download several TIFF files using a 1200bps modem, while seated on a vinyl-covered desk chair. Download hemorrhoids are particularly common among users of adult bulletin boards.

4. *Premature Baldness*: The remarkable incidence of premature baldness among computer users is scientifically noteworthy for two reasons: a) the baldness usually occurs in only two spots, each spot just above each ear; b) it occurs in women as well as men. While the cause of this condition has not yet been determined, it is suspected that the user tears out clumps of his or her hair while attempting to decipher the instruction manual for DOS.

Many other diseases have been linked to computers. For example, chronic fatigue syndrome may be caused by using Windows File Manager. Lyme disease may be caused not by ticks, but rather by bugs. Cardiac arrest is often attributable to the error message "general failure reading hard disk."

Dr. Irving Franklin
Los Altos, Calif.

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By Marguerite Zientara

Lotus to Focus on GUI, Integration, Workgroups

"In the next four or five years, Lotus will exploit intensely graphical user interfaces to offer a much richer GUI," Lotus Senior Vice President Frank King revealed recently. "We'll move from the passive and complex user interface of today to an interface that's much smarter, that's anticipatory."

"We will integrate, integrate, integrate our products so they'll work together in seamless ways," he said, "and we'll develop applications designed for workgroups."

Specifically, King said, Lotus will work on three areas — what he called A-ppearance, B-ehavior, and C-ompatibility. Lotus intends to standardize the appearance of every Lotus product, using uniform "Smart Icons" that are context-sensitive; provide users with the same syntax for every product, for common behavior; and offer compatibility across hardware platforms.

In order to exploit networking, portable and wireless technologies in the decade ahead, King said, groupware must add certain functions to productivity tools. Lotus will augment its workgroup software to include the ability to annotate documents with voice and other technologies, and will incorporate mailers, so workers can send results to other people in the workgroup.

Also needed in a workgroup is the ability to share information through repositories accessible by author, title, and subject, for instance, as well as access control and versioning ability.

Speaking at the recent Windows & OS/2 Conference in Boston, King predicted, "I believe in three years the style of developing applications and tools will be dramatically different. It's certainly within the grasp of programming technology to give software a much richer and deeper commonality."

Just How Mobile Are We Getting?

Apparently, Lotus is on the right track, judging from a recent study from BIS Strategic Decisions (Norwell, Mass.) that found the mobile/portable market will increase by 15 fold in the next four years, reaching nearly \$16 billion by 1995.

BIS projects the number of users of wireless office equipment (including

cellular telephones, laptop and notebook PCs, and portable fax machines) will grow from 20,000 in 1991 to more than 350,000 by mid-decade. That astonishing rate of growth is, however, dependent on "the wide acceptance of this technology," BIS is quick to point out.

Ease-of-use will be the pertinent factor. BIS' study, "Creating and Marketing the Mobile Office: Strategic Directions in an Emerging Market," identifies users and potential users as non-technical professionals requiring easy-to-use portable devices.

"Software will make or break the emerging mobile office trend," said Michael Bragen, principal author of the report. "Software that helps justify or make mobile/portable office equipment easier to use is essential to the success of the mobile office."

BIS cited Lotus' and Hewlett-Packard's joint venture, the H-P 95LX palmtop, as well as AT&T's Safari notebook computer, as good examples of products that successfully marry software and hardware in a mobile computing device. "Simply turn these products on, and they work," BIS observes.

Thought-Provoking Book Reveals Future of Artificial Reality

Even those who are chained to their desks in the future (as opposed to zipping around with notebooks and cellular phones) may experience a degree of freedom that seems astounding today. The "VideoDesk" of tomorrow could free the desktop, hiding all computing hardware, predicts Artificial Reality pioneer Myron W. Krueger in his new book, *Artificial Reality II*.

"The monitor will become a flat screen that hangs on the wall across from the user," Krueger writes. "The desk surface will be compatible with traditional use of paper and pen. You will sit at your desk, and be able to look at a mixture of real and graphic papers on a computer screen. Just placing a real piece of paper on the desk will cause it to be scanned into the system. You will be able to shuffle papers in completely realistic fashion."

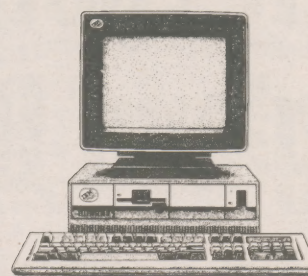
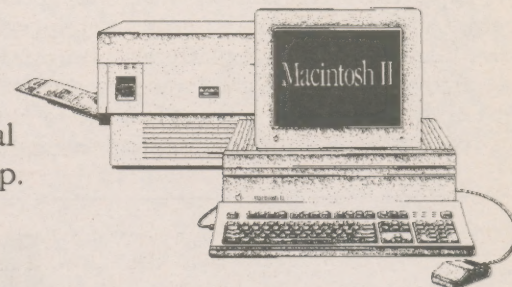
Sounds far-fetched? The VideoDesk actually exists today, having been implemented in 1987 by Krueger and his colleagues, who received a research contract from the National Science

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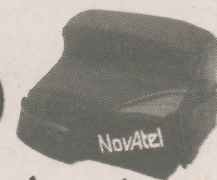
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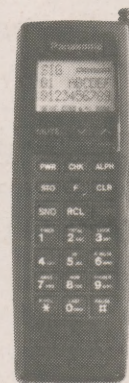
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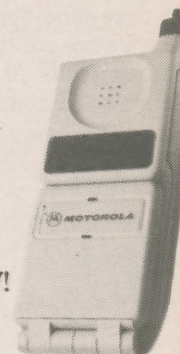
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FROM PREVIOUS PAGE

Foundation under the Small Business Innovation Research program. Krueger, who is credited with coining the term "artificial reality" more than 20 years ago, is the inventor of "VideoPlace," an artificial reality that can be experienced without wearing special goggles or clothing.

(VideoPlace, which is regularly exhibited all over the world, can be seen the rest of the time at the Connecticut State Museum of Natural History in

Storrs, Connecticut.)

For office workers who dislike the mouse (not to mention the keyboard), Krueger foresees a "gesture interface" — using your two hands for input ("VideoTouch"). "The obvious fact that people have found two hands useful, even essential, in daily life has been ignored by the user-interface community, including those working with reality goggles," he observes. "By using two hands at once, you can simultaneously perform operations that are

usually performed sequentially."

These visions of the possible future office certainly give the reader pause, but Krueger really goes into high gear when he discusses artificial reality possibilities in the world at large. Many of his fascinating ideas at first seem outlandish, then surprisingly reasonable.

Here's a sampling:

The home could be computerized in an organic way, instead of having the computer sitting in only one room. If you were in the shower and a thought

occurred to you about a problem at work, you could speak aloud to the computer, which would recognize your voice. "You would tell the computer, which would tell the car, which would tell your briefcase, which would tell your office machine," he projects. "Tactful software will have to be created so that this reminder process does not seem like automated nagging," Krueger points out.

The Kung Fu Typewriter (which exists today at VideoPlace) could reintroduce healthful physical labor into the workplace, for those people who now must take time to exercise after a full workday. The typewriter is operated by punching and kicking at large letters displayed on a large screen. "Although this idea is easy to laugh at," Krueger admits, "I have long resented the fact that intellectual labor in general and computer use in particular impose a sedentary lifestyle."

Then there is the area of "Intimate Technology," which goes way beyond the current intimacy of the telephone. "Suppose you were separated from someone you cared about, someone who needed comfort — for example, a small child who was upset," Krueger suggests. "Suppose you were speaking to the child on the telephone and had a device that you could squeeze, that in turn would squeeze the child's hand reassuringly. Would you use it? If you could take a romantic walk along a moonlit beach with your arm around your distant partner, would you do it?" Krueger claims most people he has spoken to think they would.

Artificial Reality II is not simply a look into the future of artificial reality, but a look back as well. The 286-page hard cover book, which is illustrated with color photographs, traces the beginnings of AR in art and science, and discusses in detail the existing AR efforts. Krueger's approach is philosophical and artistic, as well as scientific, which is nice in light of the sometimes frightening possibilities of AR, such as mind control or military applications (he discusses both).

Artificial Reality II (\$29.25) is published by Addison-Wesley Publishing Co., 1 Jacob Way, Reading, MA 01867. Telephone 617/944-3700.

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Marguerite Zientara is the author of *The History of Computing*, copyright CW Communications, Inc., 1981; and *Women, Technology & Power*, Amacom Books, New York, 1987.

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Pixelworks Offers Graphics Board to Speed Up Windows

Pixelworks, Inc. has introduced a graphics board designed to greatly accelerate Windows 3.0.

The single-slot WhirlWIN is an AT-bus-based (EISA-compatible) graphics controller generating non-interlaced 1280x1024 resolution when used in tandem with the Pixelworks Windows 3.0 Driver. The WhirlWIN also supports at 1024x768 resolution all applications compatible with the IBM AI graphics interface.

The high resolution of the board allows users to work on large, non-interlaced screens. For desktop publishing applications, six-point type is legible, and an entire 8 1/2 x 11-inch document may be viewed on a 19-inch screen.

WhirlWIN is also said to provide an order of magnitude performance improvement over standard Super VGA cards. The PCLabs Windows Benchmark rated the board up to 150 to 385 times faster than Super VGA for functions such as BIT BLIT Raster Operations, and 10 to 30 times faster for line and polyline drawing.

Prices for the 1024x768 resolution product start at \$1,495. Drivers, documentation, cables and a one-year warranty are standard. Pixelworks is at 7 Park Avenue, Hudson, NH 03051. Telephone 603/880-1322.

NEWS & INDUSTRY BOSTON COMPUTER NEWS

By Marguerite Zientara

Telcor Cards Optimize Data Transfer Rates

Telcor Systems Corp. has announced the T/Link Series of products designed to optimize PC-to-PC data transfer rates, even under Windows.

Telcor's T/Card v.32bis is an internal v.32bis/v.42bis modem capable of data transfer rates up to 115.2Kbps. The modem incorporates Telcor's TC90 Data Compression Technology and Telcor's Flexible Data Buffer, which is said to eliminate the problem of data loss that can occur at high speeds using serial ports configured with 8250 or 16550 ICs. List price is \$899.

T/Port-1 is an asynchronous RS-232 serial port card that enables data rates

up to 115.2Kbps over external modems or digital services. When coupled with W/FT, Telcor's basic Windows File Transfer program, data transfer rates up to 115.2Kbps reportedly can be achieved in the Windows environment. T/Port-1 costs \$149.

T/Port-1/422 is the same as the T/Port-1, but with an RS-422 Transmit/Receive interface that allows direct cable PC-to-PC file transfer at data rates over 400Kbps. List price for the unit is \$179.

Telcor Systems is at 4 Strathmore Road, Natick, MA 01760. Telephone 508/653-3995.

RealWorld Introduces Payroll Tax Services

RealWorld Corp., a developer of accounting and business software, announces the Payroll Tax Service, created to help keep payroll systems current by maintaining up-to-date federal and state tax files.

The Payroll Tax Service includes year-end updates for RealWorld Payroll (including W-2s, 1099s and federal magnetic media), the new 1992 federal tax table and tax tables for all states, federal magnetic media changes, quar-

terly report templates, plus 75 1991 W-2 forms. Users will be sent tax bulletins throughout the year with current information on state and federal tax tables and quarterly report changes.

The price (annually) is \$300 for RealWorld Software Version 6.0, RealWorld Practical Accounting System, and RealWorld Point-of-Sale Plus. RealWorld is at 282 Loudon Road, P.O. Box 2051, Concord, NH 03302. Telephone (sales) 800/678-6336.

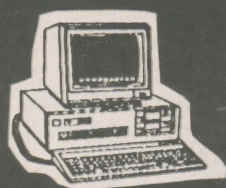
Intex Launches Spreadsheet Templates

Intex Solutions, Inc. has introduced a set of templates designed to help spreadsheet users make financial decisions quickly, easily and more accurately. CFO Spreadsheet Applications are compatible with Lotus 1-2-3, Symphony, Quattro Pro, Excel and other file-compatible spreadsheets.

"Although spreadsheets may have been originally designed with financial applications in mind, most users would prefer to devote their energy to solving a specific financial problem instead of developing the actual financial model," said Marjorie Smith, product manager.

The templates were developed and documented by financial experts from *CFO Magazine*, where they appeared over the past several years and were a favorite with readers. Now, all the templates are available in four separate packages grouped according to topic or as a complete, four-module set. The four modules are Cash Management, Tax Strategies, Capital Budgeting, and Advanced Topics. Each module comprises of six templates.

The templates run on IBM PC, XT, AT, PS/2, Compaq or true compatibles, and require 120K of RAM. Each module costs \$99.95 (plus \$5 shipping); the set of four modules costs \$299.95, plus shipping. Intex Solutions is at 35 Highland Circle, Needham, MA 02194. Telephone 617/449-6222. **SEE NEXT PAGE**

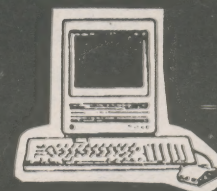


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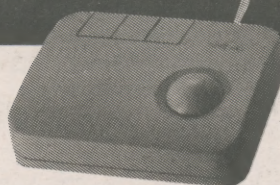
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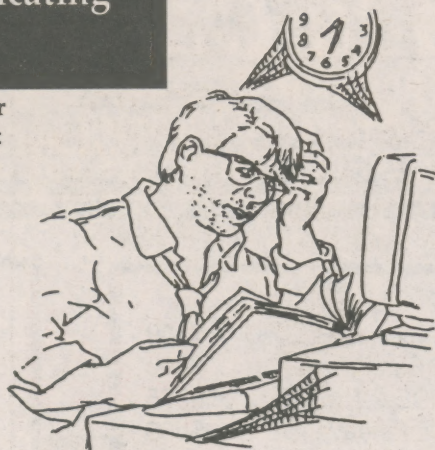
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BOSTON COMPUTER NEWS

FROM PREVIOUS PAGE

Directory Lists Hard-to-Find Disaster Recovery Services

The Fall 1991 edition of *The Disaster Recovery Yellow Pages*, published by The Systems Audit Group, Inc., is now available.

The 85-page book was designed to help computer users locate crucial but hard-to-find recovery services throughout the country. "Let's say you've had a fire and your sprinklers went off and now, in addition to your computers being messed up, all your documentation is soaking wet," suggested Steven Lewis, president of The Systems Audit Group. "You want a company to come in and dry it all out for you, but there are only a few of those [companies] around the country."

Or if New England had a blizzard headed rapidly its way, all rentable generators would be gone, Lewis projected. "During Hurricane Hugo, a lot of people in South Carolina ended up getting emergency power generators from Texas, basically because everything in that entire [mid-Atlantic] quadrant of the country was all taken," he noted.

The book contains five sections: clean-up and restorative services, mobile buildings and facilities, emergency equipment, software for file and data recovery, and publications and videos for training before disaster strikes.

The Disaster Recovery Yellow Pages comes in a three-ring binder and costs \$199, which includes shipping and handling. The Systems Audit group is at 67 Chester Street, Newton, MA 02161. Telephone 617/332-3496.

Sales and Contact Management Software Available

Profile Technologies, Inc. has announced INFOtrac 1.0 sales and contact management software for DOS stand-alone and networked PCs.

Designed by sales and marketing managers to coordinate and control the selling process, INFOtrac reportedly organizes and simplifies prospecting, follow-up and closing. The software creates a shared database of prospects and customer contact records, current status, notes on conversations and next actions, and follow-up work reminders.

INFOtrac's sign-in/sign-out feature lets users download and upload updated contact information, including notes from a central database (located on a server) to PCs, laptops, LANs, and multi-user systems.

INFOtrac features a pull-down menu system with customized data entry options and pop-up context-sensitive Help windows. The software comes with ten standard reports and a custom report generator that is said to query multiple fields, allowing access to contact information by virtually any variable.

INFOtrac operates under DOS 3.1 and later, and all NetBios compatible and Novell networks. A Windows version will be available in the third quarter of 1992. The single-user version costs \$495 and the multi-user version is \$1,995. Profile Technologies is at 6 Londonderry Commons, Suite 331, Londonderry, NH 03053. Telephone 603/434-4817.

FTP Software's PC/TCP for DOS Now Uses Less Memory, Supports Windows

FTP Software, Inc., a developer of PC-based Transmission Control Protocol/Internet Protocol (TCP/IP) software, has announced a major upgrade to its flagship product, PC/TCP for DOS version 2.1.

PC/TCP for DOS' kernel has been completely rearchitected around a Queued-Input/Output (QIO) paradigm that reportedly enables the kernel to perform in simulated multitasking environments such as Windows or DesqView.

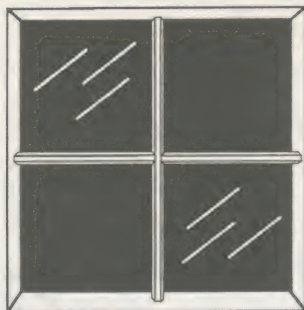
Other notable features include an almost two-thirds reduction in memory requirements via LIM EMS 4.0, support for intelligent network adaptor cards, totally redesigned installation

and configuration targeted at less technically-sophisticated users, and improved password security.

PC/TCP for DOS version 2.1 now includes NetBios at no additional charge. Priced at \$400, with discounts available for site licenses, the product will be available during the fourth quarter 1991. PC/TCP for DOS runs on IBM PC, AT, PS/2 or compatible machines utilizing DOS 3.1 or greater, including laptops and 386s, and is said to be compatible with virtually all network interface boards.

FTP Software is at 26 Princess Street, Wakefield, MA 01880. Telephone 617/246-0900.

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By Marguerite Zientara

Local Companies Offer Low-Cost Windows Software

One of the original stumbling blocks to Windows for home or small business computer users was the high price of the first Windows software applications. Happily, products are now emerging that are affordable and useful (see cover story, page 26), and some local developers have come up with offerings that look like winners (see Spinnaker Software's PFS: WindowWorks, page 26).

This article represents a sampling of area companies that are doing Windows development work, and a discussion of reasonably-priced software that is currently available, or will be soon.

For the moment, perhaps the biggest Windows headache is just making the switch from DOS. Many veteran DOS users don't want to mess around with a mouse, and are having problems with the different "mindset" necessary for Windows. For those users, here are three products designed to help ease the pain of transition from DOS to Windows.

Softac Corp. Eases Windows Keyboard Use

Startup company Softac Corp. unveiled its first product recently at the Windows & OS/2 Conference in Boston: a utility for computer users who prefer keyboards to mice, or who sometimes use laptops without mice.

Introduced under the name Hot Windows for Microsoft Windows, the product has since been renamed Keyboard User Interface (KUI) for Microsoft Windows. KUI is said to make it easy to work in Windows from the keyboard. It lets users create Hot Keys and Application Aliases that double as menus to launch or switch applications. Hot Keys take you directly to the window you want; features are integrated in a pop-up control panel.

The software provides a convenient Command Line interface said to make it as easy to change a working directory in Windows as it is in DOS. You can run internal DOS commands like COPY, DEL, and REN directly from the KUI Command Line, and you can recover any of your ten most recent commands for editing and reuse.

KUI arose out of Softac President Lowell Kopp's own frustration with

Windows. "I've been an independent software engineering consultant for almost eight years," Kopp explains, "and I've tried every version of Windows that's come out. Until Windows 3.0 came out, they all ended up on my shelf, unused. They just weren't worth looking at."

Windows 3.0 changed all that. "As soon as I realized that I believed Windows 3.0 was going to be a winner, I got the Development Kit and decided to learn how to design programs for that environment."

"As I got into it," he recalls, "one of the things I discovered was that it was getting in the way of how I liked to work. So I did a utility for it. But I think that the [Windows] environment is great, and that's why I did the program."

Slated to ship in mid-November, KUI costs \$99.95 from Softac at 23 Sunset Road, Winchester, MA 01890. Telephone 800/433-0486.

VIP Software Bridges DOS and Windows

Ten-month-old VIP Software, Inc. showed off its VIP Cockpit at the recent Windows Show. VIP Cockpit is a menu shell that lets users easily launch or execute applications, whether working in Windows, DOS, or both.

The software is said to simplify the transition from DOS to Windows, as well as provide a common user interface and system management tool.

With a click of the mouse, or a keystroke, the user can switch back and forth between Cockpit's Windows and DOS menus. While in any Windows application, clicking on the Cockpit Icon returns the user to Cockpit's Main Menu, giving instant status indicators.

Cockpit scans the user's hard disk and builds a menu based on programs

SEE PAGE 14

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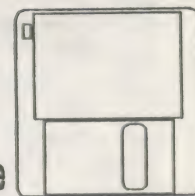
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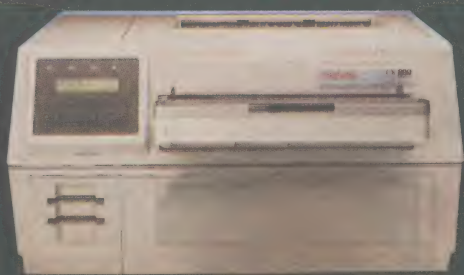
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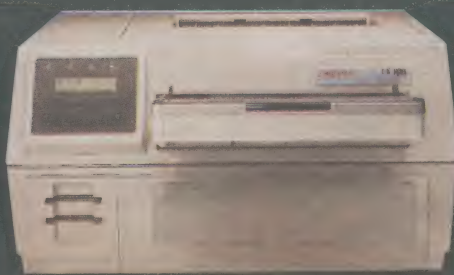
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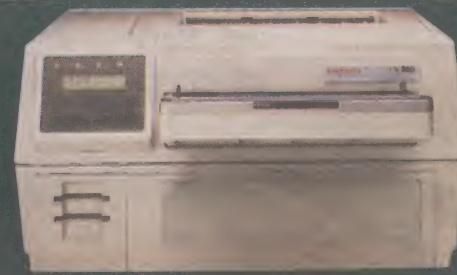
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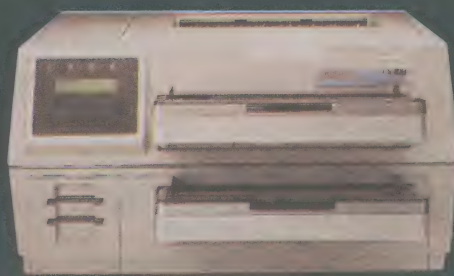
The OL820: W/built-in font scaling \$1999



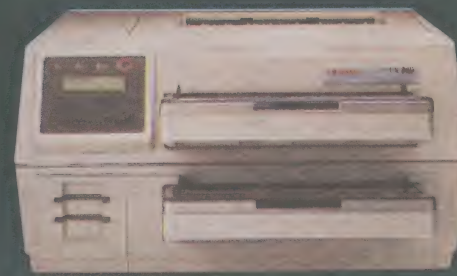
The OL840: W/PostScript \$2999



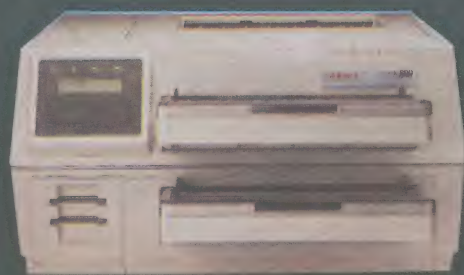
The OL800: W/200 sheet 2nd paper tray



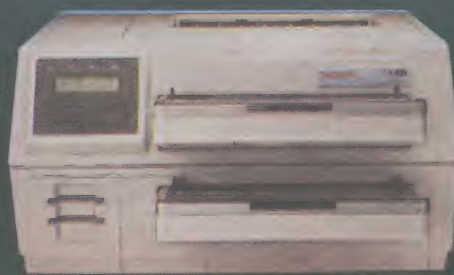
The OL820: W/200 sheet 2nd paper tray



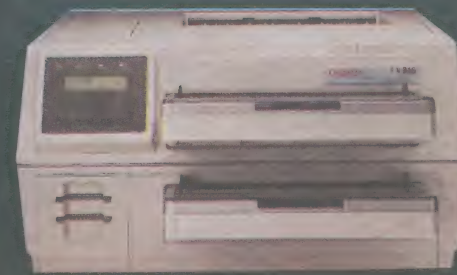
The OL840: W/200 sheet 2nd paper tray



The OL800: W/multi-user port (3 add'l users)*



The OL820: W/multi-user port (3 add'l users)*



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The OL820: Faster Than A LaserJet III.

Besides having more resident scalable fonts than the LaserJet III (13 versus 8), the OL820 also has more brains. Thanks to a unique hardware chip designed by Okidata engineers, it instantly solves complex font scaling, type rotation and grayscaling problems "on the fly"—problems the LaserJet has to go back to its software to work out.

So the Okidata OL820 can deliver up to three pages of sophisticated text while

the LaserJet III is still thinking about printing its first page. In fact, InfoWorld magazine found the Okidata OL820 to be "the fastest office printer we've tested."

Second paper tray and 4-station workgroup options are available for your Okidata OL820 as well.

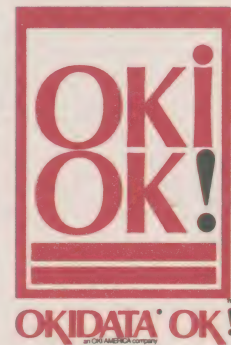
The OL840: PostScript From PC To Mac And Back.

If Adobe PostScript® printing is on your menu, the Okidata OL840 offers it for \$700 less than a comparably equipped HP. Yet that low list price includes 35 genuine Adobe PostScript fonts, plus 26 bitmapped fonts (4 typefaces); 2 megabytes of installed RAM; plus serial, parallel, and AppleTalk Network® interfaces. You can connect the OL840 to both PC and Macintosh® workstations, and switch between systems instantly.

And the OL840 still leaves you with plenty of options—a second paper tray, extra memory, and a wide selection of additional PostScript fonts on easy-to-install ROM cards.

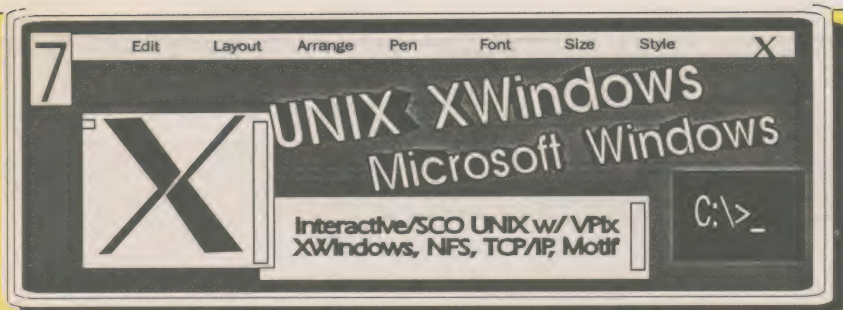
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FROM PAGE 11

it recognizes as available to the PC. Users can customize the menu layout and personalize the user interface.

System management tools include a security module, statistics module, e-mail module, project control module, usage tracking capability, virus detection, program pre-load, and a whereabouts message module.

Based on feedback received at the Windows show, VIP Software has already enhanced VIP Cockpit, before its initial release. "The need for full network support was probably the most important feedback we received at the show," explained President Richard Laskey Jr. "While we originally were able to run as a stand-alone on the network, we came to the conclusion that that was not enough."

The product now includes full network support, as well as multiple configuration options during installation, for corporate users with PCs in various configurations.

VIP Cockpit runs on IBM PC, AT, PS/2 or compatibles systems, with DOS 3.0 or above, with 256K RAM (640K RAM recommended), and Windows 3.0 with minimum 640K RAM (1MB RAM recommended).

Expected (at press time) to ship by the end of October, the software will cost \$89 for the first 60 days, after which time it will cost \$129. VIP Software is also developing Windows Contact Management software and a Windows Database Designer.

VIP Software is at One Kendall Street, Framingham, MA 01701. Telephone 508/879-9551.

Newcomer Attitash Software Will Market Inner Media's WideAngle Utility

Inner Media, Inc., creator of the award-winning "WideAngle" Windows utility, recently sold the rights to the package to startup company Attitash Software, Inc.

Windows User Group Gives A Lot of Bang For The Buck

The Windows User Group Network's (WUGNET) Corporate Windows Forum (CWF) held its inaugural meeting at the recent Windows & OS/2 Conference in Boston, and announced its disk-based Windows Resource Guide. WUGNET also announced the Corporate Windows Support Network on CompuServe, a private messaging service to support WUGNET's CWF.

WUGNET began in 1988 as an informal network in Washington, D.C., New York, Houston and Boston. "At that time, Microsoft looked at Windows as a game," WUGNET co-founder Joel Diamond told Windows Show attendees. In March 1990, the group formalized, with the exploding Windows marketplace.

WUGNET CWF's purpose is to help the corporate Windows user make the most of Windows, said Ray Elseth, WUGNET technical advisor, from Corporate Information Network (Chicago, Ill.). "The emphasis is on leveraging people's knowledge and experience," he said, noting that the CompuServe forum is "an extremely good way to eliminate reinventing the wheel."

Main speaker Stan Levine, vice-president of engineering at Automated Design Systems, Inc. (Atlanta), spoke out against "mass market computer shows" that feature lots of sales pitches. "You should boycott them," he told attendees. User-oriented shows with informative sessions are helpful, however, he noted.

"I call the sales pitches at those shows FUD missiles," he said. "They're meant to keep you from making decisions because [the vendors] can't provide you with all the solutions. That results in end users losing credibility with their companies because we can't make [software] work."

Because of vendors' unwillingness

to admit they don't have all the answers, Levine advised, users should go to user group meetings. "We have the ability to change the way the industry works," he said. "I heartily recommend that you join this [CWF] forum."

Levine also recommended that users "use off-the-shelf tools, what's available now. Don't keep waiting for the next version," he told attendees, "or you'll never get anything done."

Users should also be vocal about their complaints, Levine advised. "Tell the vendors, write letters to the editor, let the industry know what's going on," he said. And lastly, "read the manual," Levine told attendees.

Built using the hypertext-based Lotus SmartText text retrieval software, the Windows Resource Guide is a hyperlinked and indexed compendium of Windows technical information. Included are a Windows product locator, consultants guide, Windows and OS/2 development tools guide, CompuServe Windows Forum and Data Library guide, imaging and service bureau guide, and BBS guide.

The Resource Guide is free to those who join WUGNET. WUGNET members also receive the bi-monthly *Windows Journal*, the hypertext-based *Windows Journal*/Electronic Edition, and online WUGNET Data Libraries.

CWF members will also receive the entire library of back issues of the *Windows Journal* in SmartText format on disks. WUGNET membership for individuals (U.S.) costs \$95. Prices vary around the world. Group membership rates are also available.

For more information or to join, contact Windows User Group Network, P.O. Box 1967, Media, PA 19063. Telephone 215/565-7106.

— Marguerite Zientara

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Since then, Attitash has brought out the enhanced version 2.0 of WideAngle, developed by Inner Media, which will continue to develop future generations of the product. Inner Media also developed and markets Collage Plus 3.2 (\$129), a screen capture and image management product for Windows and DOS.

WideAngle (\$129.95) allows users to manage, launch and switch between DOS and Windows programs more simply. An organizational tool meant to eliminate the screen clutter of running multiple programs in a multiwindow-multitasking environment, WideAngle provides nine contiguous screen-sized workspaces, thereby "expanding" the desktop.

Each workspace can run one or more Windows applications or a full-screen DOS application. Without resizing or shrinking Windows, applications can be activated directly from the workspace or moved between workspaces. WideAngle features an interactive icon, hot keys and customizable groups, all of which help the user to jump around among applications and operating systems. Attitash Software is at 20 Trafalgar Square, Nashua, NH 03063. Telephone 603/882-4809. Inner Media at 60 Plain Road, Hollis, NH 03049. Telephone 603/465-3216.

What Is Attitash?

Attitash Software is the brainchild of Microcom, Inc. veterans Patrick Clark and Bruce Twickler. Before Microcom, Clark was a co-founder of Interlan and also worked for Prime Computer and GE Information Services.

Twickler was president of Hayden Software, then became president of Shiva Corp. in its startup phase. Before Twickler got into the software business, he was VP and general manager of Pioneer's Home Electronics Division.

The duo started Attitash in April 1991 to focus on Windows, utilities and communications products. Attitash plans to create its product line through acquisition, licensing and internal development. "We saw the Windows opportunity," says Twickler, "and we felt the world really needed a company with our focus to provide a channel to market all the technology that's happening." The result was WideAngle 2.0.

Since then, Attitash has also licensed two more well-reviewed Windows utilities, Prompt and Dragnet, developed by Access Softek (Berkeley, Calif.). Prompt, a file manager, was originally priced at \$129.95 and Dragnet, a text retrieval package, cost \$99.95.

"All the reviewers said, 'Too bad these two products aren't packaged together for \$149.95,'" Twickler notes, "so we're going to package them together for \$129.95." By the end of December, Prompt and Dragnet will be available as one product, with a new name and some "slick additions," Twickler promises.

Serif, Inc. Is First Out With Low-Cost DTP For Windows 3.0

Startup company Serif, Inc. (Nashua, N.H.) has released PagePlus for Windows, an easy-to-use electronic pasteboard said to be ideal for creating "high-impact publications" such as flyers, ads, handouts, invitations, brochures, short newsletters, business stationery, forms, and similar items.

"PagePlus is not a general purpose desktop publishing package," explains company president Gwyn Jones. "It's a short document product. We think the Windows word processors are getting very competitive with desktop publishing software like PageMaker, so we've tried to concentrate on what word processors aren't very good at, which is free-form designs where you need a lot of flexibility and creativity."

"Whereas I would imagine Aldus would see PageMaker as actually moving into competition with word processors fairly directly," he noted, "we see our product as a companion to a graphical word processor."

PagePlus' text and graphics import capabilities include Word, WordPerfect, WordStar, ASCII, RTF, TIFF, PCX and WMF. The software also features full text and image rotation; typographic control including point size, expand, condense, slant, kern, letterspace, outline, pattern and color; and graphic export, for creating logos or cover pages.

PagePlus comes with 70 fully-scalable outline typefaces, a free PANTONE Color License, and more than 100 clip-art images. PagePlus produces output from virtually all Windows-supported printers — not just PostScript.

PagePlus' Introductory Offer price is \$99 through December 31, after which it will cost \$149. The software carries a 60-day money-back guarantee, and is available directly from Serif, Inc., P.O. Box 803, Nashua, NH 03061. Telephone 603/889-8650.

Bitstream Software Creates Special Effects With Type

Bitstream, Inc., a 10-year-old company that claims to be "the first independent digital type foundry," recently announced a \$149 package for creating special effects with type. MakeUp for Microsoft Windows 3.0/3.1 was co-developed by Bitstream and Publishing Solutions, Inc. (Marlborough, Mass.).

With MakeUp's text manipulation and graphics features, users can create such things as logos, illustrations, banners and mastheads. MakeUp is a stand-alone Windows application that does not require a separate font-scaling utility.

The software is said to be appropriate for a wide range of Windows users, from inexperienced desktop publishers to graphic artists and designers. "We've packed MakeUp with a host of features you won't find anywhere else at this price," said Bill Andrews, vice

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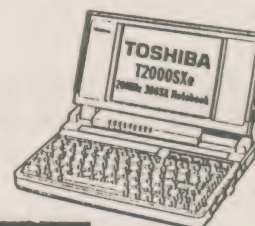
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FROM PAGE 15

president of sales and marketing, who compares MakeUp favorably to the \$695 CorelDraw.

Expected to be available in the first quarter of 1992, MakeUp will support the three leading industry type standards—Type 1 (Adobe Systems' PostScript), Apple Computer's TrueType, and Bitstream Speedo. MakeUp will ship with five typefaces, each of which will be provided in the three type formats.

MakeUp reportedly lets users manipulate type in many ways—they can rotate, stretch, skew, flip and duplicate text (and objects). Text may be poured into predefined or user-created shapes. These text effects are complemented with graphic elements such as lines, rectangles, polygons, ovals, circles and starbursts. Both text and graphic objects may be filled with patterns, colors and color washes.

Bitstream is at 215 First Street, Cambridge, MA 02142. Telephone 617/497-6222.

Lotus Bundles Upgrades to 1-2-3 for Windows, Ami Pro

Lotus Development Corp. (Cambridge, Mass.) is offering upgrade price breaks for a limited time via its so-called "Double Up" deal, a bundled upgrade of Lotus 1-2-3 for Windows and its Ami Pro 2.0 word processor.

With Double Up, users of any version of Lotus 1-2-3 or any Lotus word

processor, including Ami Pro, Ami Samna Word IV and Manuscript, may upgrade to both 1-2-3 for Windows and Ami Pro for \$199. Effective through December 31, the special promotional offer represents a \$645 retail value.

Lotus is at 55 Cambridge Parkway, Cambridge, MA 02142. Telephone 617/577-8500.

Add Sound to Your Business Graphics Presentations

Arkay Technologies, Inc.—which formally introduced its low-cost sound system for DOS or Windows last February (*Computer Currents*, August 1991)—is expanding its repertoire to include support for more presentations packages.

Arkay's products add clear sound to multimedia presentations at low cost, because there's no expensive (and complicated) sound board involved.

The Arkay system is based on:

- PC-SoundPort (\$98), an adaptor that plugs into a PC's printer port and connects directly to a speaker. Comes with a choice of DOS or Windows driver that supports popular graphics packages.

- PC-Recorder (\$149, down from \$198), a hand-held recording device for both voice and music audio that plugs into the printer port and records high-quality sound directly onto a hard disk.

- PC-Sound software (\$98), which expands the sound capabilities of a

PC's internal speaker from fuzzy beeps to clear voice, music and other sound effects, without the need to install hardware.

- PC-Sound for Windows software (\$98). Works as a master control program, from which users can add voice- or machine-recorded sound linked to visuals. Eliminates cueing and segueing worries. The software supports IBM Hollywood, Microsoft Excel, Microsoft Word for Windows, and Asymetrix Toolbook. Will be available soon for Lotus Freelance for Windows and 1-2-3 for Windows. Ships with PC-SoundPort adaptor (normally \$98) and four disks of PC-SoundClips (normally \$25 per disk).

Arkay is at 5 Tsienneto Road, Suite 2, Derry, NH 03038. Telephone 603/425-2149.

Windows Books, Booklets & Cards Available

GMT Automation, Inc. offers a series of quick-reference cards for DOS, Windows and Macintosh users. Windows titles include Windows 3.0 and Word for Windows. The 8 1/2 x 11-inch cards feature instructions, helpful hints and reminders, printed on both sides. All cards are sturdy plastic with easy-to-read type and are highlighted in a contrasting second color. Cards cost \$6 for one, or as low as \$4.50 each in quantities of 500 or more. For a price list, contact GMT Automation, Inc., 7 Harvard Street, Charlestown,

MA 02129. Telephone 617/242-9263.

From Useable Portable Publications, Inc.—publisher of compact, flat-lying guides that fit at the top of your keyboard—are coming some new Windows titles. Word for Windows (\$5.95) is available now, and Excel for Windows (\$12.95) will be out by January 1. Also due out around the first of the year is a guide to Windows 3.0/3.1 (\$12.95) (contingent on Microsoft's release of Windows 3.1).

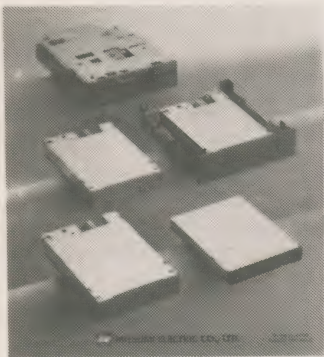
Useable Portable Publications has also signed a deal with book publisher Business-One Irwin (Chicago, Ill.), whereby Business-One will produce Useable Portable combination guides that will be available in bookstores.

The first title, out this month, will combine DOS, WordPerfect and Lotus 1-2-3. Early next year, Business-One will publish a combination Windows 3.0, Word for Windows, and Excel for Windows; as well as a combination Windows 3.0, WordPerfect for Windows and Excel for Windows.

For more information, contact Useable Portable Publications at 617/729-1943.

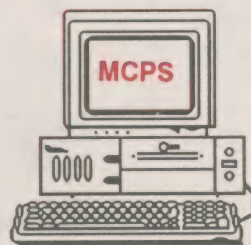
Butterworth-Heinemann Publishers has produced a 256-page hardcover pocket-sized book, the *Newnes Windows 3 Pocket Book*, set for release this month, written by Ian Sinclair. The price is expected to be \$19.95. Also from Butterworth-Heinemann is a paperback, *Using Windows 3*, by Arthur Tennick, priced at \$29.95. Telephone 800/366-2665.

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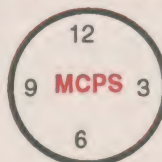
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Interviewed by Marguerite Zientara

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Hours: Mon.-Fri. 10-7, Sat. 10-5 (at press time, expected to be open Sundays, starting in early November)
Type of Sales: Storefront and direct corporate sales
Date Started: Billerica storefront opened in early 1991
Salem, NH storefront opened September 1991
President: Ren Yang
Salespeople: Billerica, 3; Salem, 3
Hardware: Forefront brand IBM-compatible personal computers, ranging from 286/12MHz machines up to 486/33MHz. Also carries notebook computers.
Software: Selected software, such as time management and contact management for sales; image manipulation software for digitized document archive/retrieve systems; image compression software.
Consulting: Yes
Service/Support: Mainly carry-in service; on-site contracts are available. All computers come with one-year parts and five-year labor warranty. Toll-free unlimited technical support hotline.



FSG President Ren Yang (left) and National Sales Manager Barry Rubin.

What is FSG's specialty?

Ren Yang: Our specialty is that we have a very strong internal engineering capability. We constantly evaluate a large number of different components on the market, and we standardize our systems by selecting the components we feel most comfortable with and only those products that pass our engineering tests.

We make sure the components work together as a package. So by utilizing the concept of a whole system, not just individual components, and putting our systems through this type of engineering process, we try to standardize them to maintain a consistency and reliability in a very cost-effective way.

What differentiates FSG from the competition?

The biggest difference is we are not one of those so-called flea-market types of computer stores. Because of our belief in the engineering process, every system we sell has been put through a very strict engineering process in-house, and we have fully tested it before we ship it out to the customer.

And we build our systems in our engineering lab. We don't just put them together in the back room of our storefront. Every storefront is actually just

our point of sales, to provide a convenient location for people to look at the system, talk to our knowledgeable people and to make sure they get the right system.

We also have very knowledgeable people doing the technical support through the phone or face-to-face. Three engineers do the tech support out of our centralized engineering lab [in Billerica]. No matter where customers buy systems from, they can always use this service. We don't limit people to bringing the system for service at the store where they bought it. They can always use any of our locations, whatever is most convenient for them.

What technological areas does FSG specialize in?

We have a very specialized software design that allows people to archive their paper documents. They can digitize them, store them in the computer, and manipulate the images for all kinds of different applications, like desktop publishing, or just for the purpose of archiving the paper documents in electronic format.

The typical application is in, say, a law firm, or engineering firm, or a medical institution, where doctors, for example, can store x-ray pictures in

the computer, so they can access them from various locations in a very effective way, as well as manipulate and enhance the images.

Who is your typical customer?

Our customers range from end users — the general public — to mid-sized businesses, and all the way up to institutes like Harvard Medical School and Harvard Business School.

Is networking one of your special areas?

Yes, because of industry trends. Inevitably, we have a very big networking demand from customers, and we deliver our network consulting service of design and installation with our systems.

How did you personally get into the computer retail business?

I used to be a principal systems analyst and senior software engineer at Digital [Equipment Corporation], and because of my belief in the potential of the personal computer, I left Digital and got into the personal computer area two and a half years ago.

FSG Computer Center is affiliated with Forefront Technology Corp., a nationwide system and component distributor. In the first two years of the

company, we have been distributing our product throughout the nation, and we are still doing that. But we also thought that in the Greater Boston area, the whole user community would appreciate our effort to provide our product and highly technical services directly to the general public.

What system is selling the best right now?

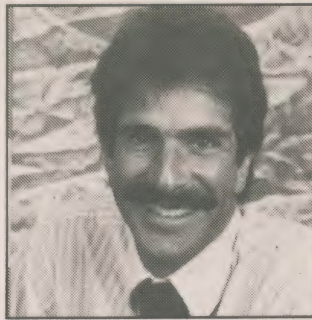
The 386/40. They're 20-percent faster, and an extremely reliable machine, at the 386/33 price. It's the best price/performance ratio available in the marketplace.

What would you say is the greatest challenge that you face in the retail area?

I think it's constantly to keep ourselves up to date on the newest technology. Because the technology evolves so fast, we need to constantly evaluate the product and stay caught up with the technology, without sacrificing our consistency and the stability of the product.

Do you have expansion plans?

Within the next two years, we are planning to have around a half dozen stores throughout the New England area.



By Rick Altman

Self-Employed Desktop Publishers

Six Who Have Made It

At last year's annual Ventura Publisher Conference in San Jose, Calif., the panel discussion on starting a desktop publishing business turned out to be the most popular and well-attended session of the three-day event. At the time, I was surprised—I thought that most desktop publishers worked at large companies and used Ventura or PageMaker as part of their job descriptions. That characterization is no longer accurate, as thousands of desktop publishers are hanging out their own shingles, either full-time or part-time. After all, if you're in business, you're involved in publishing, and today, that translates to being involved in electronic publishing.

Last year's 90-minute discussion featured the following six speakers:

Heidi Waldman: a graphic designer and publisher in Minneapolis, Minn.

Skye Lininger: a chiropractor-turned-publisher, author of three books on publishing, and publisher of his own health newsletter.

Lisa Labrecque: sole practitioner in San Francisco, Calif., active in production, design, editing and consulting.

Michael Utvich: author of two books on publishing, and publishing consultant/trainer for the past seven years.

Bob Moody: founder of the Ventura Publisher User Group and *Ventura Professional* magazine.

professional magazine.

Carol Lovelady: leader of a large user group in Atlanta, Ga. and successful trainer and consultant.

This cross-section of business people dispels the myth at the outset that being in a publishing business necessarily means that you produce newsletters and brochures for clients. You can start a desktop publishing business many different ways: writing about it, consulting and training, as well as production. Or you can just go out and start an international user group. There are many av-

enues for one to be successful in desktop publishing. Here are excerpts from last year's discussion.

Altman: The first question is "Why?" There are so many hats to be worn — marketer, developer, contractor, bill collector, P.R. person, human resources, quality control. Why do you do it?

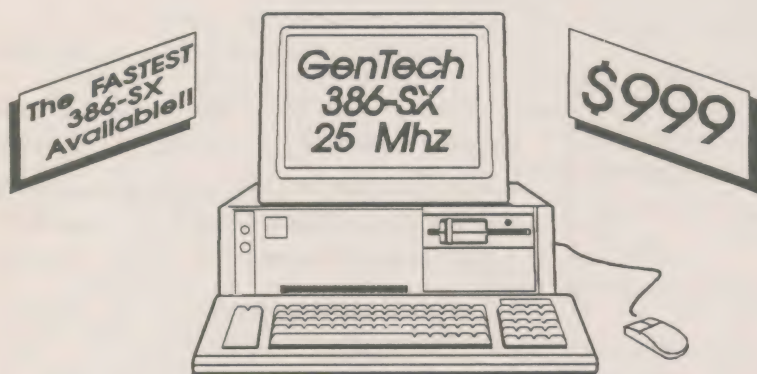
Lininger: The main thing is you only have to work part of the time. If it's only a half-time job, you can work either the first 12 hours of the day or the second (laughter).

Waldmann: I love the variety of wearing all those hats you talked about. I find it a challenge. When I get tired of one thing, I work on another. There is never-ending variety.

Labrecque: I think being able to control my own destiny is a big part of it. I think also just working in publishing and having the tools... my background is in publishing, and I did everything the traditional way for several years before the technology came along. Having the capability at my own fingertips is a real freedom. It's become somewhat of a spiritual element in my life.

Utvich: The publishing work that I do

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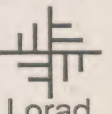
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is a literal extension of my work as a writer. I'm an instructional designer and part of my job is to deliver some kind of document, be it a training manual, a marketing piece, a newsletter, or an advertisement. So basically what publishing does for me is it enables me to control not only the writing, but the final product that goes to the client. With desktop publishing software, I have absolute control over the quality of the project that I'm doing from beginning to end. There's a very high level of freedom.

Moody: These other panelists have religious experiences. Hell, I'm in it for the bucks. I've been publishing things for 15 years. We started with a little monthly newsletter, but finally said, "This is crazy — we can't do it for free anymore." So we turned it into a magazine.

Lovelady: I went to work for myself after being laid off from a computer consulting company not yet into desktop publishing. I made the switch into DTP because I liked the freedom it gave me.

Of the six of you, how many of you actively market your services or products? (two hands raised)

Labrecque: I spend more time turning work down than trying to find it.



Lisa Labrecque:
"I spend more time turning work down than trying to find it."

Moody: The magazine receives an average of 10 to 15 calls a week... "Who can I get help from? Where can I get support? I've got this half-done project but this person left the company. I need a Ventura expert, somebody who can do the work."

If there's more business out there than we can possibly shake a stick at, why do people fail? How come people start publishing businesses and then fail?

Utvich: You really need to learn the industry, not just the software or the technology. There's a whole lot more behind it. DTP is only a tool with which to accomplish that. Businesses often struggle and fail because they don't have the experience in traditional publishing, graphic arts, design, and all that. Without that kind of back-

ground, what can a computer do for you? It's really just a tool.

Waldmann: But aside from the DTP, the publishing, the typography, the graphic arts, there is the whole aspect of running a business. I think that lots of people come to it without any idea of how to run a business. The single thing that I see most in the Minneapolis area is people underpricing their skills. If you charge clerical type rates, \$15 or \$20 an hour for work, you are treated like clerical. You get jobs from people who are very price-conscious, not terribly quality-conscious, and have little disposition to give you repeat work.

Is it possible to be self-employed and not absolutely love what you're doing? Can you do it without love?

Lininger: I think it depends on your level of professionalism. There's a lot of projects you might get into before you realize, halfway through, that you don't really like it. The level of professionalism you have determines whether or not

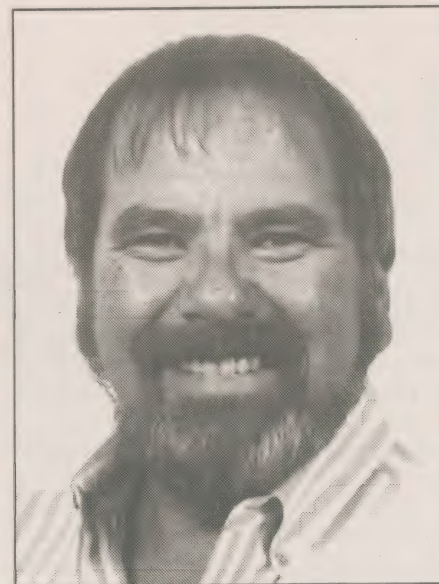
you get through it. I'll tell you too, where I think a lot of people make their mistake: too many people are perfectionists. I think a lot of people try to be A+ people, and I think if they were B+ people they'd be a

lot happier. I think it takes as much effort to do 90 percent of the job as it does to do that last 10 percent. I could kern this a little more, or make this graphic a quarter-inch larger... and then spend another six hours tweaking the other stuff. And I think that's a mistake. I talk to people a lot who have time management problems — they ask me how do I get so much done. I say that I probably don't fiddle with it as much as they do. When I get to the point where I have a B+ level of satisfaction, that's

where I stop. Because 99 percent of the people that look at that work are not going to be able to tell the difference between B+ and A+.

(Three members of the panel shaking their heads) What do the rest of you

SEE NEXT PAGE



Bob Moody:
"In a production environment, I break the job down."

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FROM PREVIOUS PAGE
think? Is it just a job?

Waldmann: I don't agree, and I am surprised to hear Skye say what he said about this B+ thing. I am a perfectionist. I'm very compulsive about it and it's got to be perfect. Maybe my clients would be happy with B+ work. Maybe I'm the only one who would know the difference between the B+ and the A+, but it would really bother me if I knew deep down that my work could be A+ and it's not. Now, when a project turns into the job from hell, that might be another story...

How did you all promote yourselves initially to get clients?

Moody: There are lots of ways to generate interest and business in your own neighborhood. The local clubs — Lions Club, Rotary Club, Chamber of Commerce—they all produce fliers and newsletters. If you go in there with a sample of how good it could look, and give them a clear picture of how much it would cost for you to do it every single month, that will make a strong impression.

Waldmann: I sent out a reply postcard. It listed the kinds of things that I do, and had a checkoff where they could return it to me: Yes I'm interested, I'm interested but not ready now, or I'd like more information. I sent out 250 of these to smaller businesses, kind of an assortment that I'd gotten out of the yellow pages, and out of the local newspapers — real local, the neighborhood newspapers. My rationale was that these were small businesses that needed this sort of

thing. I sent out 250 to organizations, retailers, doctor's offices, things like that, and got back about 60 replies. I was pleasantly surprised at the response. I called all of those to set up appointments. I got jobs from 11 or 12 of them. That was the beginning of my business. It was a little over two and a half years ago, the beginning of my full-time business. Since that time I have done no advertising.

Linger: My story was much like Lana Turner's. Except instead of hanging out at Shwab's drug store, I hung out on the CompuServe Electronic Bulletin Board Service. I got asked to speak at this seminar by CompuServe. Rick and I met there, and he recruited me from CompuServe. And every month on the DTP forum on CompuServe, there's a half-dozen classified ads asking for people that have DTP skills in different parts of the country and offering work.

Labrecque: I used to run a group called the Freelance Network, which is a professional society. This country is obsessed

with professional societies. Any kind of society — Yugoslavian Grape Stompers have a society somewhere. Everybody in this country is organized. And that plays to your advantage. There is a publication published by Gale Research of

Chicago, called the Encyclopedia of Associations. It lists every society by profession in this country. Graphic arts, writing societies, professional designations — these societies are great contact points to industries.

I'd like to know what each of you charges for your various services, briefly. Let's go right down the line.

Waldmann: I'm currently at \$45 per hour for virtually everything. And at this point since I do a lot of typing, I'm even at \$45 an hour

for input of text. Non-profits are at \$40. This is in the Minneapolis area.

Linger: I don't really do much consulting, except for free. But when I have charged for consulting it's usually between \$50 and \$75 an hour.

Labrecque: I would say an average is \$40 per hour, and I offer, although I don't

do much anymore, a sliding scale for non-profits, which goes down from there.

Moody: In a production environment, I break the job down. If they want me to design the style sheet, I charge specifically for the style sheet, and then additional costs for the actual work. My fees for style sheets are between \$250 and \$750. The actual production work is done at \$75 per hour, and usually the jobs are pretty significant. They're ones that other people can't handle. And if it's straight text and things like that, it may go down a little bit. It's usually \$75 an hour.

How do you learn about job costing and pricing?

Utovich: A good rule of thumb in costing and pricing is to break up the job into the component parts that you recognize. Uncover all of the steps that have to be done for it to be finished. Once you break down and outline the job, you'll be in a much better position to estimate each little element in terms of days or hours or even minutes.

It really is a relationship — just as if it were a person. You've really gotta love it, don't you?

Labrecque: No two ways about it.

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Rick Altman consults and lectures on corporate publishing throughout Northern California. He hosts the annual Ventura Publisher Conference in San Jose, CA each fall. You can write to him on CompuServe (72341,1714) or at 20204 Merritt Drive, Cupertino, CA 95014. □



*Carol Lovelady:
"I made the switch into DTP because I liked the freedom it gave me."*

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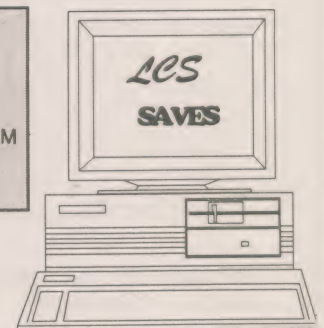
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Distributing Multimedia

By Andrew Shapiro

Everybody's talking about multimedia. Those who are working on it are constantly frustrated with the lack of standards. Producing multimedia is akin to making movies, only more difficult.

Video production never had the compatibility problems the computer world has had to wrestle with. There was VHS or Beta. Beta died; end of problem. Everybody sees the same picture and hears the same sound. When was the last time you saw a PC with volume controls?

Those who want to produce multimedia already number in the thousands. Unfortunately there are a few obstacles. Before we worry about production, though, let's briefly explain what multimedia is. Multimedia is a presentation on a computer monitor. Roughly, it contains some combination of a slide show, graphics, sound, animation, full-motion video and text.

Many people want a more formal definition. But perhaps that limits our thinking and discriminates against unborn technology.

We can safely assume that multimedia is out to change our world in very profound ways. Yet certain problems remain, largely in two areas: playback platforms and distribution. After we figure out how to make multimedia programs play on a very large number of machines in the installed user base, then we have to figure out how to get the program to the users.

There are several possible ways of distributing multimedia. It is just digital information, after all. That means we can use the old tried-and-true floppy disks. Data compression has gotten better and more people know how to use it. Programmers have gotten comfortable with self-extracting disks that automatically decompress the data onto the user's hard drive.

We can distribute huge amounts of data on CD-ROM discs. A typical compact disc will hold about 650 megabytes of data in uncompressed form. That's good enough for just about any type of multimedia presentation.

Multimedia Via Modem

The next means of possible distribution is through modems. Multimedia is synonymous with huge file sizes. To make presentations downloadable, it's best to consider 9600 baud. Less time means lower phone toll charges. A one-megabyte file travelling at only 2400 baud would take about 80 minutes; at 9600, that same file transfers in 20 minutes. Also, there have been enormous gains in data compression technology. Compression ratios of 600:1 now exist. Effectively, this means we can soon provide "live" video for download on floppy disks.

Consider that anyone can easily and inexpensively set up a computer bulletin board system (BBS) to distribute multimedia. Consider the second half of the term: "media." If you have a BBS, in some ways it's like owning a TV network, but multimedia has certain advantages over TV. Television cannot provide interactive features and it cannot deliver hard copy. Equipped with a modem, a PC and a phone line, you can gain the ability to distribute programs to anyone in the world.

Why Multimedia?

A multimedia program can be educational, informative and entertaining. It can teach nearly any subject anywhere. The user can interact with the program.

Let's suppose that our multimedia program is a course lesson teaching chemistry. Teaching begins and during the course the computer asks the user for a response. The user may use his mouse or keyboard to "click" the appropriate response button. A final exam could be scored by the program on the spot to provide instant feedback to the student. A slow or incorrect response will provide remedial routes and sub-lessons.

Educators benefit too. Talented students could learn at their own pace, freeing up teachers to spend more individual time with slower or disadvantaged students. The third world could be taught by the best professors of Stanford or Yale. In spite of a few current drawbacks, it's coming. As an outlet for retrieving educational materials, the only missing component is in its distribution. You'd be well advised to learn about it as fast as you can.

Andrew Shapiro is the director of the Northeast Computer Show (Wednesday through Friday, November 13-15, World Trade Center, Boston). This year's show will be offering dedicated conference sessions on practical applications for multimedia. A plenary session open to all attendees, "The Reality of Multimedia: It's Right Here, Right Now," will be given by Tom Yager, director of the Multimedia Lab Project, Byte magazine. The Northeast Computer Show is co-sponsored by The Boston Computer Society (BCS). Tickets: one-day exhibits-only, \$12; one-day conference & exhibits, \$95; or \$195 for 3-day pass. To register, call 617/449-8938, or fax 617/449-2674.

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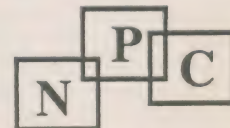
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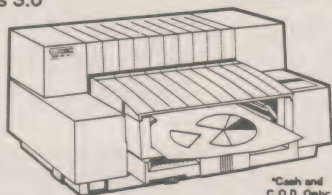
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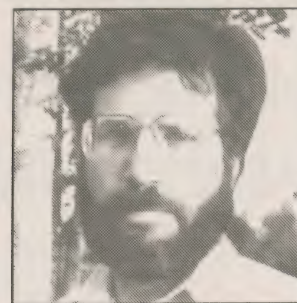


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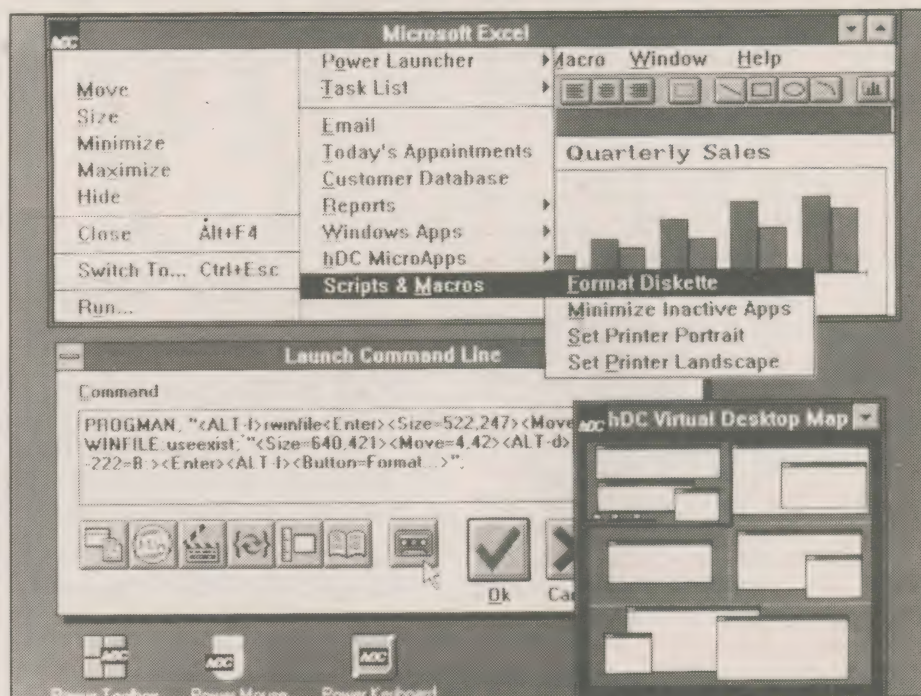
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WINDOWS CHRONICLES



By Charles Bermant

hDC Power Launcher



Power Launcher lets the Windows user structure a menu system that manages applications and their related files.

There is a part of the Windows interface called the Control Box, a little gray area in the upper left hand corner of every window. It features a number of incidental commands such as Minimize, Maximize, Switch to Next Application and Close. Since all of these are more easily accessible through other means, many people might not even know the Control Box exists.

It is through the Control Box, however, that Windows utilities vendors are now offering added value. The pattern began with hDC, which tied file and system utilities to the Control Box with its MicroApps line. Recently, both Norton Desktop and PC Tools have added application launcher modules to their utilities packages, enabling the easy access of one program from within another. Now, hDC has taken it to the logical next step: the Power Launcher is a full-blown management package that, when used in conjunction with other hDC utilities, brings full system control to the Control Box.

Unlike other hDC utilities, which might be termed "user obsequious," Power Launcher is more of a high-end product. Aspects of the program may leave the novice user confused. In simplest terms, Power Launcher creates menus that launch any application or utility — from within Windows or in DOS — from the Control Box. In order to create such a menu, a user needs to be

able to separate program files from data files, and know how to make the appropriate associations between them.

One remarkable aspect of Power Launcher is its ability to function as a program shell. Windows requires a program "shell" to operate; the default is the mostly functional Program Manager (any application can work as a shell, the only practical requirement being the ability to load other programs from within the shell). That Power Launcher does not use icons changes the characteristics of Windows: by turning it into a list/menu-driven system instead of an icon-driven system, it brings commands closer to the user as it decreases visual dependence.

The menu system resembles an outline; you can list all the programs on the system and arrange them as menus and submenus by clicking directional arrows. It allows you to tie together menus and submenus, in the same way that the Program Manager separates applications into related



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groups. You can enter a specified program and pathname, or use the "browse" facility to select appropriate .EXE and .COM files for inclusion.

With some patience, you can structure a menu system that manages every needed application and its related files (and contains everything that is listed on the Program Manager). For instance, you can build a MicroApp submenu to hold several applications, or just install the one you need on the main list. A file management submenu can contain a combination of MicroApps, Windows programs and DOS applications.

Power Launcher brings a level of complexity and flexibility to every level of the system, tying a virtually infinite amount of commands to the Control Box. And if it isn't so easy to construct a menu, Power Launcher offers a good way for a knowledgeable boss to control the access to applications given to employees.

The ability to group applications in this manner will save both time and resources, at least for those who aren't hung up on Windows' visual aspects. Power Launcher is a list-driven system, and does not require an icon for each application (each installed icon, as many Windows users are learning, represents a system drain).

Keyboard sequences, also, are often faster than the equivalent mouse commands. With Power Launcher, it takes no time to pop up the Control Box (Alt-Spacebar) and the highlighted key that loads the desired application. Once you've memorized the commands it's even faster. Or if you use the mouse, such sequences can become onesweeping hand motion.

With Power Launcher, the distance between any two points in the Windows environment becomes comfortably short.

Power Launcher also adds a level of convenience to the Task List, which indicates all active applications. Unlike the standard Task List and other substitutes, this version lists "hidden" applications. So if you think a background program is troublesome, you can turn it off without rebooting. In addition, any desktop icon can be hidden, for either security or cosmetic reasons.

In addition to the user-configurable menu section, Power Launcher includes a system information gauge that gives a current bar-graph representation of the RAM, system resources and free hard disk space. It also has a "virtual desktop" — a method for widening the available screen area. hDC's take on this process resembles a product called WideAngle, where nine different screens can be accessed.

You're still governed by memory and

system resource constraints, but this module allows several applications to run in simultaneous full-screen mode. The virtual desktop icon is always visible, and you reach other screens with a right-button mouse click. (Interestingly enough, when Power Launcher is used in conjunction with the Norton Desktop, Norton's controls are separately visible on every screen quadrant.)

In the spirit of "don't call now, there's more," the package contains three additional MicroApps. Here, you can

remap mouse buttons, reassign keystrokes or assign a toolbar — similar to that included with Excel or Word for Windows — into any application.

Power Launcher has faced off against Norton Desktop for Windows in what is actually a blatantly unfair comparison. You may want one of these products, or the other. But although they overlap, they don't really compare or compete. Norton is for people who want absolutely everything in the same box, turning your system into a trea-

sure chest of utilities. Power Launcher, on the other hand, serves to streamline your system and construct the shortest distance between two points.

Norton Desktop and Power Launcher are different products that almost do the same thing. Real Windows users will want both.

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Charles Bermant is the author of *The Windows 3.0 Companion*. He can be reached through MCI Mail as "cbermant."

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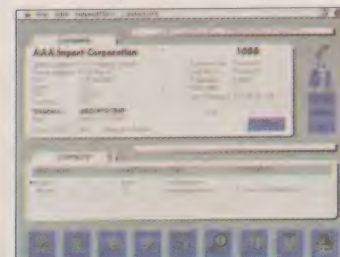
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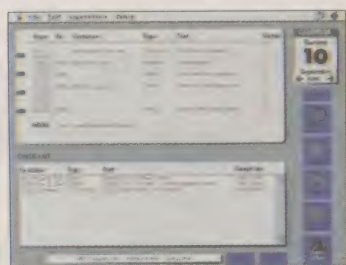
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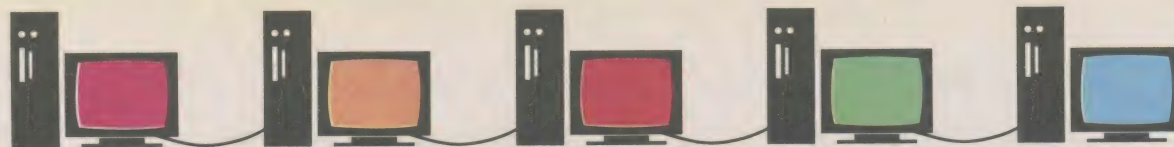
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WINDOWS

For The Rest Of Us

Low-Cost, Easy-to-Use Mainstream Software Has Arrived

By Lawrence J. Magid



Microsoft Works is one of several new Windows application packages that are low-cost and easy to use.

Windows 3.0 has been on the market since May of last year and, finally, there is now plenty of available Windows software. As with any new platform, the first wave of Windows 3.0 applications were aimed at the high end of the market. The first programs on the block included development tools and mega-application programs like Word for Windows, Ami Professional and the Excel spreadsheet. What those programs have in common is a high price tag, a relatively big demand on hardware resources and a laundry list of features. High-powered software has its advantages. People who write for a living are likely candidates for big word processing packages. Accountants and professional number crunchers will stand in line for powerful spreadsheets. MIS managers and hackers will die for programming tools and utilities. But what about the 60 million other PC users? Or, for that matter, the 4.5 million small businesses and 65 million households who, accord-

ing to Microsoft, are still not using a computer?

Hardware for the Rest of Us

The bad news is that PC hardware could be easier to use; the good news is it's getting less and less expensive. A "Windows-capable" 386SX PC with a color VGA display, a 40-megabyte hard disk and at least two megabytes of memory can be had for less than \$1,500. Personal laser printers start at about \$800 and ink-jet printers, which produce laser-like documents, only more slowly, are available for under \$500. But you can't expect people who pay less than \$2,000 for a complete computer system to spend thousands of dollars on software. They no longer have to.

The Wait Is Over

This fall marks the debut of a number of new Windows programs aimed at the "entry level" market of first-time users, home users and small businesses. This group — computing's silent majority — doesn't need industrial-strength software. They want software that is economical, reliable and easy to use.

To this end, we looked at several new packages including two integrated

"works" programs, three new personal finance programs, three new "entry level" desktop publishing programs and three new inexpensive word processing packages.

The Works

Imagine a combination washing machine, dishwasher, water heater and clothes dryer. Now imagine it costing less than one of the appliances it replaces. Impossible? Well that's the way it is with integrated software. When integrated programs were first developed in the early 80s, they were designed, positioned, and priced at the high end. But early versions of Symphony, Framework and other programs in that category never caught on big time. Then came AppleWorks for the Apple II followed by Microsoft Works for DOS and Mac, LotusWorks (formerly AlphaWorks), PFS:FirstChoice and other inexpensive and easy-to-use integrated programs. Sales skyrocketed as computer users, like beer drinkers, discovered products with great taste that are less filling.

Typically, integrated software combines word processing, spreadsheet, communication and database management. Some have drawing features. Others tie in charting, label making and a variety of other special tasks. Whatever the combination, the user gets all the modules in one purchase,

saving money and trips to the software store. What's more, the learning time required to master one module spills over to the other. Finally, all the successful integrated programs have developed ways for data from one module to be used by others.

There are now two integrated Windows programs. Spinnaker's PFS:WindowWorks combines word processing, page layout, spreadsheet, database, graphs and charts, communications and label making. What's more, the modules are well integrated so they can "hot link" from one to another. The program comes with Atech Software's Publisher's PowerPak that, like Adobe Type Manager, provides "scalpel fonts" that can be viewed and printed from four to 127 points.

Microsoft, whose "Works" programs have done very well on the DOS and Macintosh platforms, has just introduced MS-Works for Windows. The Windows version has a word processor, spreadsheet, database and drawing program along with business graphics. Microsoft decided to forgo the communications module because Windows already comes with Terminal, a basic communications program.

Both "Works" programs can open multiple windows so that you can switch from task to task — or document to document — at the click of a mouse. You can also easily copy and paste between documents, making it easy to integrate data from one task to another. Both programs also offer hot links that make it possible, for example, to automatically update a word processing document containing a chart or financial report pasted in from a spreadsheet by making changes in the

spreadsheet itself.

Spinnaker's "what you see is what you get" (WYSIWYG) word processing module is powerful enough to compete with many stand-alone products. Here are just a few items: 60,000-word spelling checker, style sheets and paragraph styles (so that you can select from a pre-defined document format), multiple columns, page preview, the ability to place and work within "frames" for text, graphics and charts, automatic text wrapping around frames, drawing tools, manual kerning, indexing and table of contents. You can view your document in 200% or 50% "zoom" mode as well as "fit to page," there is a tab-level outline generator, and you can add shading to

text. The spreadsheet can handle up to 30,000 rows by 10,000 columns and has more math and statistical functions than most people will ever use, along with graphing and charting features. The communications module is simple, but it does have scripting and the ability to capture text so that it can be edited by the program's word processor. The database section can handle up to 32,000 records, provides mail merge with the word processor and allows you to define up to ten reports per database. There is also an address book function and a label maker.

Spinnaker has announced that WindowWorks, Logitech Mouse and Windows are available bundled in the

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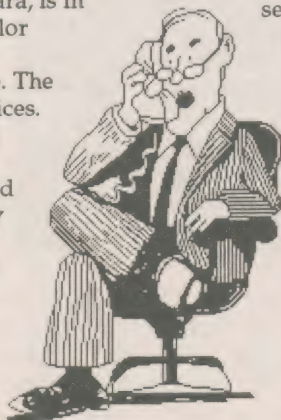
BOOKS

There are probably hundreds of books about Windows 3.0. But, in keeping with the theme of "Windows for the Rest of Us," we'll concentrate on two that are very accessible.

- *The Little Windows Book* by Kay Yarborough Nelson (Peachpit Press, \$12.95) offers 136 pages of basic advice for Windows users. The book may not be everything you ever wanted to know about Windows, but it does provide a lot of good information, especially for those who don't want to pour through Microsoft's documentation.

The inside front and back covers start you off with "31 Useful Windows Secrets." The book itself begins with a quick guided tour around Windows. The next chapter, "Working with Windows," tells you how to get around within the software, how to move between windows and use list boxes, command buttons and all the other available tools. The "Working with Programs" chapter provides you with some basic advice that applies to virtually all Windows software. The book's publisher, Peachpit Press, is located at 2414 Sixth St., Berkeley, CA 94710. Phone: 510/527-8555. Fax: 510/524-9775.

- Like Windows itself, the book *Easy Windows*, by Shelley O'Hara, is in living color. The many color illustrations make it very accessible and easy to use. The book is definitely for novices. You won't find advanced concepts or optimization strategies but you will find a good Windows glossary and plenty of user tips. Published by Que (11711 N. College Ave, Carmel, Indiana), the book has a cover price of \$19.95.



SOFTWARE

- If you want to let your computer help you learn Windows, then consider Professor Windows from Individual Software (Pleasanton, Calif.). This \$49.95 program, which runs within Windows, has more than 1,000 screens of instructional material ranging from using the mouse, working with fonts and creating directories to using Windows over a network. The program offers a logical progression through self-paced lessons and includes practice exercises and quizzes. Call 510/734-6767.
- Bloc Publishing (Coral Gables, Fla.) offers WindEase, list price \$59. After Windows is installed, WindEase is designed to give the user hands-on or interactive instruction in all the major aspects of how to use Windows including the File Manager, DOS Executive, etc. Call 305/445-0903.
- Other available software includes Teach Yourself Windows, list price \$49.95, from ATI, 213/823-1129.

USER GROUPS

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- WUGNET - Provides technical services and publications for professionals working Microsoft Windows, OS/2 & Presentation Manager. WUGNET Online, located in the Microsoft Connection WINAPB on CompuServe WUGNET section 8 is open to the public and includes shareware. Contact WUGNET at 1295 N. Providence Rd., Ste. C107, Media, PA 19063, 215/565-1861.

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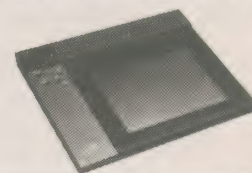
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Microsoft Works doesn't advertise as many functions as PFS:WindowWorks and its word processing program isn't as robust. However, its spreadsheet is very powerful and its database has one important feature that's lacking in the Spinnaker product. MS-Works allows you to work with up to eight documents (mixed and matched between modules) at a time. The word processor, though basic, has the features you'll need for letters, reports and articles. It has a spell checker, a thesaurus and word count. It's also very easy to use, complete with a toolbar (similar to the one Microsoft's Word for Windows features) that lets you press a button for frequently-used commands.

Works' drawing function takes advantage of Window's dynamic data exchange (DDE) facility by launching a separate drawing program, called MS-Draw, and creating a link between

the drawn objects and the drawing program. Click on a drawing and it automatically brings up the drawing program. The same technology is available in the new Publishing program and in an upcoming version of Microsoft Word.

The database module is well integrated into the word processor, making it possible to create "form letters" for those of you who want to generate your own junk mail. Unlike Spinnaker's product, the database allows you to create fields that can accept multiple lines of text. This can be a life saver if you need to include descriptions and annotations. It's especially useful to people creating catalogs, product roundups, glossaries and other databases that include paragraph-length descriptions.

Works, along with Microsoft's new Publisher program, has its own "wizards." This new form of online help provides scripts that walk you through the steps of performing complex tasks such as setting up a personal or business address and phone database. The user can follow along and learn the steps or just let the wiz-

Spinnaker's word processing module is powerful enough to compete with many stand-alone products.

Cumulus Announces WorkBox SX/40



The WorkBox SX/40 model offers such features as a 40MB hard disk drive, 16-bit SuperVGA graphics adapter with 800x600 resolution (VGA monitor optional), and MS-DOS and Windows, installed.

Designed around a compact case, the WorkBox SX/40 includes a 16MHz 386SX processor, 1MB of RAM expandable to 16MB, a 3 1/2-inch floppy drive, a mouse and keyboard, two serial ports and one parallel port, and six available expansion slots.

The system arrives fully configured and "goes directly to the Microsoft Windows environment when first switched on," according to the company.

Cumulus Corporation (Cleveland, Ohio) has announced the first of its WorkBox family of computers — described by the company as a full-featured, plug-and-play system priced at \$999 retail, plus monitor.

Cumulus offers a one-year limited warranty. Authorized Cumulus WorkBox dealers include MicroAge, ComputerLand, and Connecting Point. Cumulus can be reached at 216/464-2211.

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ard do the work. Microsoft will ship the product with several scripts (each script is called a "wizard") and, in the future, will publish the specifications for creating wizards so that it will be possible for third-party software developers and corporate information departments to create their own, according to Michael Harvey, product manager for Microsoft's Entry Business Unit.

On The Money

Microsoft Money, Intuit's Quicken for Windows and Wilson WindowWare's WinCheck are easy-to-use personal finance managers designed to keep track of expenses, income and assets. All three are able to handle multiple accounts (including checking, savings, investment accounts and credit cards) and each can import data from the DOS version of Quicken. WinCheck has been on the market for

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several months. Microsoft Money has just shipped. Quicken for Windows should be available in October.

Quicken for Windows is the only one that allows you to send electronic payments via the CheckFree service, which I personally use and have found to be a great system. WinCheck is distributed both commercially and as shareware. Shareware copies are available on CompuServe and most local computer bulletin boards or by calling Wilson WindowWare's BBS (modem only) at 206/935-5198. Shareware distribution is designed for evaluation purposes only. Shareware authors expect users to pay to register their software.

Quicken's publisher, Intuit, has long been the leader in both DOS and Macintosh personal finance software. Quicken Version 1.0 for Windows offers all the features of the DOS version including the ability to write and print checks, send electronic payments (via CheckFree) and keep track of checking, savings, cash, credit cards, investments, money market accounts and other assets and liabilities. The program creates standard and customized reports.

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WinCheck, from Wilson WindowWare, allows you to work with any number of checkbook, savings, cash, credit card and other accounts. You can transfer money between accounts or write checks to others.

Like Quicken, the program makes use of handy icons to shortcut the process. Entering a credit card debit or credit, for example, is as simple as clicking on a picture of a Visa card. Another icon allows you to quickly enter ATM transactions. All three programs are easy to use, but this gets the award as easiest of the easy.

Whenever you enter a transaction, you are able to click on a "details" icon to bring up a screen where you can add optional information. This includes a "comments" section where you can write a brief paragraph about the transaction. Using that feature could come in handy at an IRS audit or any other time you're called upon to explain a particular item. All three programs allow you to enter a "memo" on the check.

Microsoft Money For Windows provides the same general features including detailed tracking of transactions, simple budgeting, the ability to print checks and the ability to track expenses on several criteria. It also has automatic entry features (i.e. "smart file") to minimize keystrokes. The program has a feature called "smart reconcile" which attempts to reconcile

discrepancies between your records and what you get back from the bank, based on "best guesses." It may not always work, depending on the nature of the discrepancy, but it's a terrific timesaver when it does.

Low-Cost Publishing Power

Microsoft and Power Up are introducing new "entry level" Windows desktop publishing programs. Power Up's Express Publisher for Windows and Microsoft Publisher are both designed for users with little or no desktop publishing experience. Both are well suited for newsletters, greeting

cards, fliers and many types of business and personal documents.

Based on demonstrations by both companies, Express Publisher appears to be the more powerful of the two entries for multi-page documents. The program allows users to view editable "thumbnail" miniatures of their documents, providing a quick preview of the document's layout. Text and graphics can be freely rotated in either the full page or thumbnail views.

Microsoft, as with Works, has added a "wizard" feature to Publisher to guide users through the creation of documents, a plus for new desktop publishers.

Spreadsheet Simplicity

Excel and Lotus 1-2-3 are powerful but complex spreadsheet programs. They can do lots of things, but you do have to learn some basic concepts to use them productively. T/Maker Research has another idea. I Hate Algebra is a spreadsheet program with no algebraic formulas. Unlike traditional spreadsheets, it doesn't use cell references. Instead it functions like a giant electronic calculator, allowing you to enter values and operators (+, -, *, =, /) next to the values being calculated. The concept of the program is that it's likely to be familiar to anyone who's used

a calculator.

If you're new to spreadsheets, this one may be easier to master, but if you've ever used Excel, 1-2-3 or any other spreadsheet program, you might find this one actually harder to learn.

The program, like most spreadsheets, produces business graphs and charts. I Hate Algebra has a suggested retail price of \$179. T/Maker Research is located at 812 Pollard Rd., Suite 8, Los Gatos, CA 95030. Phone 408/866-02127. Fax: 408/866-0129.

— Lawrence J. Magid

The Microsoft offering has an interesting text manipulation tool called "WordArt." Along with a library of special fonts, the tool allows you to create special effects such as shadowing and curving text. Power Up is bundling Express Publisher with TextAppeal, its new text manipulation program that allows you to rotate, curve, shadow and stretch type to create "one of a kind" images. TextAppeal is also a stand-alone product that works with a variety of other word processing and desktop publishing programs. Both WordArt and TextAppeal will, undoubtedly, make it possible for users to create some rather unusual — and often ugly — special effects.

Database for the Rest of Us

There have long been high-end Windows relational databases, but now there's an easy-to-use flat filer designed for personal use. TakeNote, from ButtonWare (the publisher of PC-File), lets you keep track of such things as names, addresses, notes and phone numbers without using a lot of memory or disk overhead. The program can print lists, mailing labels, three-by-five-inch cards and most label formats. It can exchange data with a variety of programs including dBase, PC-File and comma-delimited text files. It can auto-dial any phone number in the database. It supports the MDI (multiple document interface) standard so you

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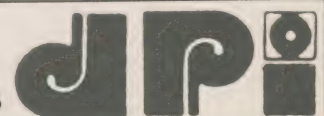


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can have several "card files" on the screen at the same time.

The Lighter Side

Windows isn't all work. There are a growing number of games and entertainment programs. And there will be plenty more in the future. On October 8th, Microsoft and its hardware and software partners from the MultiMedia PC Council formally launched the era of "MPC" — MultiMedia Personal Computing. With it will come a slew of entertainment and education titles ranging from encyclopedias to multimedia games.

At the present time, there is a limited supply of Windows entertainment products. Microsoft includes Solitaire and Reversi with the Windows 3.0 package and offers yet more games as part of its optional entertainment package.

In November, Maxis Software will release a Windows version of SimEarth, its popular successor to SimCity that allows users to design their own planets or manipulate any of seven pre-built planets including Earth, Mars and Venus. The Windows version has enhanced art and 3-D buttons.

There was nothing new or particularly exciting about Windows calendar programs until Gary Larson announced The Far Side Computer Calendar. The program, which can ac-

tually be used to keep track of your schedule, comes with a full year's worth of Larson's Far Side cartoons. The company plans to offer "graphical refills" in future years.

For those who like their screens to offer a wide variety of visual entertainment during idle computing periods, the Windows version of Berkeley Systems' After Dark screen saver has plenty to choose from. Your screen will dive into the depths of the ocean where sea life swims gently across the screen, or visit the less conventional realm of the flying toasters or witness a supernova. And that's just the beginning — this screen saver has something for everyone.

Word Processing

There are two word processing programs that fit neatly into this entry-level round up: JustWrite from Symantec and Professional WritePLUS from Software Publishing Corp.

Symantec's JustWrite

JustWrite is easy to use and, by Windows standards, quite fast. Its feature list includes a table editor for adding spreadsheet-like data inside your documents. You can also link Excel data, so that your word processing document contains live spreadsheet data which will dynamically change if your spreadsheet changes. The program is billed as an "executive word processor," which is Symantec's way of saying that it's not as full-featured as the more expen-

sive Microsoft Word for Windows or Lotus' Ami Professional.

While JustWrite lacks the ability to create macros (keyboard shortcuts or custom menus), it does support style libraries which allow you to create and store frequently-used document formats for repeated use. It has a spell checker and thesaurus, and plenty of other high-end features, including the ability to generate outlines and tables of contents. The program is well-suited to

people who use graphics in their documents. You can insert a graphic frame and have text flow around the picture.

Another Nice Feature

This graphics feature is what you'd expect in a desktop publishing program — not a mid-range word processor.

Another sophisticated feature is the program's ability to reduce or enlarge your document. The reduced mode lets you look at a page or more on the screen, while the enlarged mode shows your type at twice its actual size. In both cases, these are live modes so you can edit your document while viewing it in its altered state. The enlarged mode is great for people working in small type faces. I like Windows' "what you see is what you get" screen capabilities — but not while I'm working in six-point type.

Automatic File Conversions

The program offers automatic file conversions, enabling users access to Microsoft Word, WordPerfect, WordStar, Ami Pro, MultiMate and other documents. The program recognizes the file format and performs the conversion automatically. It will also save the file back to its original format. Like most word processing programs, JustWrite supports mail merge, making it possible to send out form letters.

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All three money-management programs are easy to use, but WinCheck is the easiest of the easy.

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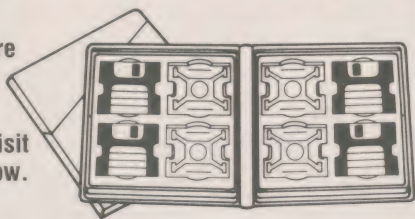
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COVER STORY

FROM PREVIOUS PAGE

One nice touch is its ability to directly read dBase and Symantec Q&A files. Most word processors require you to convert the mailing list file to ASCII before printing.

SPC's Professional Write PLUS

Professional Write PLUS, from Software Publishing Corp., includes a thesaurus as well as an integrated grammar and spelling checker. The program comes with style templates that can be customized by the user. The templates allow users to assign multiple formatting attributes such as bold, underline and font selection. The program is frame oriented so that you can define a space on-screen for importing graphics and text or manipulating text around graphics. It offers several page preview modes including full screen, enlarged and facing pages.

The program has line drawing, graphic and text importation facilities and auto-hyphenation. The program supports Windows DDE so that graphics from other programs can be quickly updated via the program that created the object.

Network users will be pleased to learn that the program has an "integrated electronic-mail front end" that allows users to send and receive e-mail messages without exiting the program. This feature works over any network that is compatible with Novel Message Handling (MHS).

Utilities

Peter Norton Computing, a subsidiary of Symantec Corp., isn't exactly your local utility company, but its utility programs have been very popular. The company now offers a Windows-based version called The Norton Desktop for Windows. This set of programs is built around a single Windows desktop that serves as an alternative to the Windows' Program Manager and File Manager. It gives you the same icons as the Program Manager in addition to its other features. It also includes a Windows backup program and Windows versions of the most popular Norton Utilities including Disk Doctor and SmartErase. It has a "SuperFind" search facility that can locate files on multiple drives based on any text in the file or any part of the file name. An icon editor allows you to modify existing icons or create new ones. There is a screen saver with ten optional displays, a "document shredder" to completely destroy sensitive data and a "batch builder" which allows you to automate tasks and build your own menus and dialog boxes.

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Lawrence J. Magid is a nationally syndicated computer columnist and Silicon Valley-based analyst and writer. He can be contacted at P.O. Box 620477, Woodside, Calif. 94062, or on MCI Mail as LMagid.



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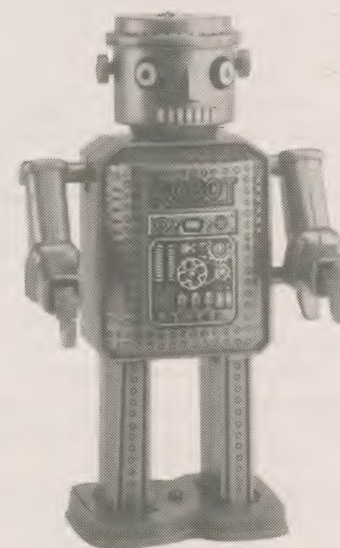
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By Michael Dortch

Windows on LANs: A Wash or a Wash-Out?

Microsoft Corp.'s Windows graphical software environment — that's a combination user interface/operating system with an identity crisis — may be the most successful software product ever published. Current estimates place the number of copies being sold as you read this at between 11,000 and 14,000 per day, a sales level that speaks volumes for itself.

However, all is not necessarily clear and bright behind Windows, especially when it's used on local area networks. While Windows offers network users great promise, it will be a while before the majority of that promise can be realized.

A Not-So-Grand Opening

Windows didn't really become a market factor until the release of version 3.0. With Windows 3.0, Microsoft brought a lot of power to users of traditional, character-based DOS applications. For the first time, disparate applications on an IBM PC or compatible could almost interoperate as well as applications on, say, a Macintosh from Apple Computer Inc. (Mac enthusiasts may now enjoy a 30-second break for snickering and smugness.)

Networks gained some benefits, too — but not very many, and not very easily. Windows, users said, was difficult to install correctly on networks, requiring extensive re-installation and/or tweaking of applications and support files (like those old friends of DOS users everywhere, CONFIG.SYS and AUTOEXEC.BAT).

Furthermore, under all too many conditions, Windows on a LAN would just crash, or deliver an "Unrecoverable Application Error" (UAE) message with little additional explanation and no recommendations for ways out of the dilemma. Also, if there were few stand-alone applications which took full advantage of Windows, there were even fewer for networks.

Ch-Ch-Changes

Things have changed for the better, and will continue to do so at least through 1992, according to Microsoft. While Lotus Development Corp.,

WordPerfect Corp. and a few other leading applications developers have been slow to produce Windows versions of their leading products, those versions are out now, and have been worth the wait, according to some users. (Actually, Lotus' Ami Pro 2.0 has shipped — reviewed last issue — while WordPerfect for Windows' release is "imminent.")

Also, while Windows' networking features have been slow to grow, Windows has made several types of network applications easier to use. The two categories in which this trend is perhaps most evident are LAN management and LAN-to-host-computer access. Virtually every leading provider of applications in these areas has produced a Windows version, and touted the same litany of benefits — when it's done right, Windows makes tasks like these easier and faster for most people to complete.

With LAN management, Windows brings an additional, important benefit. When management information can be presented and manipulated graphically, and not just as endless columns of near-meaningless figures, it doesn't always take a rocket scientist or highly-trained specialist to understand and act upon it. This means that LAN planners, particularly in corporations with many scattered and/or connected LANs, can manage their networks more effectively, without the expense and difficulty of hiring one or more specialists for each workgroup. Windows' graphical user interface makes this possible in many cases.

That interface has proven irresistible to commercial applications developers and many users, resulting in a chorus of demands for improvements not even mighty Microsoft could ignore for long. The success of Windows 3.0,

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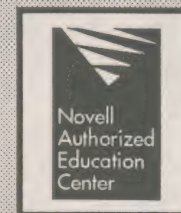
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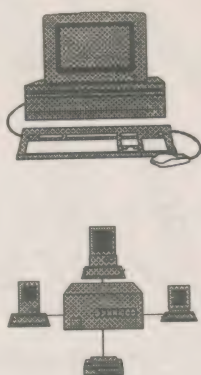
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NETWORK ADVISOR

FROM PREVIOUS PAGE

coupled with the apparently unstoppable growth of LANs, has caused Microsoft to begin changing Windows in ways designed to make the environment more network-aware and network-friendly.

For starters, Windows 3.1, in the hands of some developers now, has been enhanced by the addition of pre-configured support files for hundreds of network adapters and other devices and software. Installation has been simplified, UAEs reduced and more clearly explained, and performance improved overall.

Microsoft has also begun working more closely with developers of network operating systems, including Novell Inc. (NetWare) and Banyan Systems Corp. (Vines). Microsoft promises that Windows will gain greater integration with and easier installation on networks based on these operating systems, as well as on its own LAN Manager software.

Microsoft's ultimate goal is to make everything you see on a Windows screen look and act like a local resource, whether it's actually located on your hard disk drive or on the drive of a network server down the hall or across the country. Windows' features for sharing and linking information from diverse sources, Dynamic Data Exchange (DDE) and Object Linking and Embedding (OLE), are also being improved and made more network-aware, according to developers and Microsoft officials.

DDE can be thought of as a more elaborate version of "cut and paste," while OLE lets users build dynamic connections (or "hot links") among diverse data. These features help users build, maintain and use so-called "compound documents" that can combine information from databases, spreadsheets and the like, and update those documents automatically when source information is changed.

Microsoft has also improved support of our old, familiar DOS applications under Windows. The Colossus of Redmond has finally recognized that many Windows users don't always run right out and buy Windows versions of their business applications, often choosing instead to run the DOS applications they've already bought and learned. Windows will continue to support DOS applications, but you'll probably have to switch to versions designed specifically for Windows to take full advantage of Windows' current and promised benefits.

By 1992, Microsoft plans to introduce Windows NT, for "New Technology." This version of Windows won't require DOS — it will emulate DOS internally — and will run atop a variety of operating systems and on a variety of hardware platforms, if Microsoft has its way. Microsoft is also working hard to convince developers of other network computing products to integrate Microsoft's Windows application programming interfaces, or APIs, into those other vendors' products, for smooth and consistent integration of

multiple network applications under Windows NT.

Windows and the Promised LAN: Getting There From Here

It's very important to remember that none of Windows' current or future benefits will be cost-free, especially if most of the PCs on your networks are getting on in years. You need fast machines based on 80286 or 80386 chips from Intel Corp. (or compatibles), at least four megabytes of random access memory and a fast, spacious hard disk drive if Windows is to run well enough to avoid frustrating network users.

If these requirements stretch your network budget beyond its limits, you must consider alternatives to Windows. These can range from character-based visual interfaces that consume less memory than graphical environments like Windows, to sticking with DOS for a while longer.

If you do choose Windows, you must commit to implementing Windows versions of your most important network applications, whether purchased or custom-built by or for you. You must also insure that these applications conform to the latest versions of Microsoft's APIs and other rules for Windows-compatible programming, which are readily and voluminously available from Microsoft.

If your business depends primarily on custom network applications, these may have to be largely or completely rewritten to comply with Microsoft's rules. If most of your network applications are off-the-shelf, you may find that commercial developers update their applications at different rates, which may impact your own network upgrade plans. In either case, expect the move to Windows to be neither swift nor problem-free, unless your networks are small, simple, and dependent upon few applications.

Windows can make computers and networks easier to use, and users more productive, if it's implemented well. Microsoft appears to be doing its part, by making Windows' networking features more robust, and working closely with developers of network operating systems and applications. However, network users and managers must also do a fair amount of work themselves, if Windows is to shine on their networks.

So, should you put Windows on your networks? If you're not sure, don't do it yet. If you think you're sure, talk to a lot of users, consultants and developers before making any major commitments. You may decide to wait a while before actual widespread implementation, but you need to begin planning and evaluating your options now.

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Michael Dortch is the author of *The ABCs of Local Area Networks*, published by Sybex, Inc. He is based in San Francisco, and the opinions expressed herein are solely his own.

Macfocus

News, Reviews, and Features for Macintosh Users



MAC PURIST



The Apple PowerBook 100, 140 and 170

On the Road With the Mac PowerBooks

(With Apologies to Jack Kerouac)

By Tony Bové

What if some of the best writers of my generation had used the Macintosh PowerBook for perfecting their craft in whatever exotic locations they chose? Here's an excerpt from the notes for the electronic version of *On the Road*:

I first met the Mac PowerBook not long after my Mac Portable and I split up. I had just gotten over a serious illness that I won't bother to talk about, except that it had something to do with miserable shoulder spasms caused by the hefty weight of the Portable, and my feeling that the lighter DOS laptops were brain-dead. With the coming of Mac PowerBook began the part of my life you could call my electronic life on the road. Before that I'd often dreamed of taking my computer with me to see the country, always vaguely planning and never taking off...

The Mac PowerBook may not be the perfect Mac or the perfect laptop computer, but it offers outstanding convenience and power when compared to any other laptop available

today.

No DOS laptop or notebook computer offers the convenience of an AppleTalk connector for connecting directly to a network (without the need for reconfiguring the system or notifying a network manager). Nor does a DOS laptop offer an integrated SCSI port that lets you instantly connect SCSI hard disks or other devices. Nor does a DOS laptop record and play digital sound. No other laptop or notebook offers a built-in two-button trackball and palm rest for comfortable typing and mousing on your lap. I consider the PowerBooks to be the first laptop computers that can actually be used on your lap without incurring pain in your wrists.

SEE NEXT PAGE

UPDATE

Macintosh Classic II Debuts

The Mac Classic has been the fastest selling Apple ever, and Apple is extending its market popularity by adding a new model. The Classic II has a Motorola 68030 16MHz processor for more than double the performance of the original Classic.

It supports System 7's virtual memory feature, allowing support of more powerful applications without extra RAM. Like higher models, the II now has a microphone and sound in-

put. The original Classic can be upgraded to Classic II standard with the addition of a special motherboard.

Features include a math coprocessor socket and a SuperDrive, along with AppleTalk, SCSI (Small Computer System Interface) and ADB connectors. An \$1,899 2MB version is available that includes a 40MB hard disk. Also available is an \$2,399 4MB RAM version with an 80MB hard disk.

— Paul Zucker, Newsbytes

Apple Intros High-End LaserWriters, Monitor, Scanner

Apple Computer (Cupertino, Calif.) has rolled out a variety of new products aimed at desktop publishers. Apple introduced two high-end LaserWriter printers, a new 21-inch color monitor, version 1.1 of its MacTCP development platform, and a new scanner.

The new laser printers, available this month, are called the LaserWriter IIg, \$4,599, and the LaserWriter IIx, \$3,599. They both incorporate the Adobe Postscript Level 2 page description language which improves printing speed, adds new capabilities, and is said to be fully compatible with existing applications and drivers.

According to Apple, both printers offer built-in text smoothing, gray-scale imaging, and high-speed networking. Because the new products feature the same design as previous LaserWriters, users of the LaserWriter IINT and IINTX can upgrade to either the IIg or IIx via a logic board exchange.

The new printers feature two new proprietary imaging technologies called PhotoGrade and FinePrint. PhotoGrade enables the LaserWriter IIg or IIx to print gray-scale images by controlling the size and placement of dots. FinePrint is edge-smoothing technology that improves the quality of text and line art. According to the company, it virtually eliminates the jagged edges characteristic of many laser printed documents.

Although both FinePrint and PhotoGrade are standard on the LaserWriter IIg, only FinePrint is standard on the LaserWriter IIx, with an additional four megabytes of RAM required to enable the PhotoGrade capability.

Both printers use the Canon LBP-SX eight-page-per-minute laser engine.

The company's new Apple OneScanner, \$1,299, features what Apple is calling "one-button" scanning technology that allows for high-quality photographs and artwork to be incorporated into documents. It can scan images in up to eight bits or 256 levels of gray.

The scanner also includes the Ofoto and HyperScan 2.0 scanning options. Ofoto includes the one-button Autoscan feature that automatically controls all aspects of the scanning process, from setting brightness and contrast to straightening and cropping images. Users can also manually control all aspects of scanning.

The HyperScan 2.0 software allows users to scan images directly into HyperCard stacks.

The Apple OneScanner is available now. Apple Scanner users will be able to upgrade to the new software for a suggested retail price of \$195 through Light Source (Greenbrae, Calif.) by calling 800/231-SCAN.

— Ian Stokell, Newsbytes

FROM PREVIOUS PAGE
Finally Going Mobile

I tried the original Mac Portable, and while using it I was impressed by the display (backlit active matrix) and the power of having a Mac wherever you are. But the Mac Portable is just too heavy to carry around and too bulky to use in an airplane seat.

The PowerBooks are magnificent for travel use. Each of the PowerBook 100, 140, and 170 models can fit inside a briefcase or on an airline seat tray. The PowerBook 100, at slightly over five pounds, offers a 16-megahertz 68000 processor and a 9-inch backlit supertwist liquid crystal display (640 by 400 pixels). Although the 100 runs System 7, the 68000 processor does not support virtual memory.

The PowerBook 140 offers a slightly larger (10-inch) backlit supertwist display with a 16-megahertz 68030 processor, in a slightly thicker package that weighs just under seven pounds. The PowerBook 170, the most powerful model, offers a 25-megahertz 68030 processor and a 68882 math co-processor, and a backlit active-matrix display in the same size and weight as the 140. Both 68030 models support all features of System 7, including virtual memory.

The PowerBook 100 and 140 models are supplied with two megabytes of RAM, expandable to eight megabytes; the 170 comes with four megabytes and is expandable to eight. The 100 has

an internal 20-megabyte hard disk; an optional external floppy drive (which reads and writes DOS floppy disks as well as Mac disks) is available. With the 140 you have a choice of an internal 20-megabyte or 40-megabyte hard disk, and an internal floppy drive is included. The 170 comes with a 40-megabyte hard disk and an internal floppy drive.

Like all other Macs, the PowerBooks support 8-bit sound, and the 140 and 170 models come with microphones for sound input. All models have SCSI, printer (LocalTalk), and ADB (Apple Desktop Bus) connectors. As usual, you can daisy-chain up to six SCSI devices and up to three ADB devices. The internal 2400bps modem and 9600bps fax modem, standard in the 170 and optional in the 140 and 100, includes fax-sending software and error correction (MNP 4.5, v.42 and v.42bis).

All PowerBooks come with a CMOS clock/calendar chip with a long-life lithium battery, and the 140 and 170 use nicad batteries (two to three hours

of usage before recharging for three hours), while the 100 uses a sealed lead-acid battery (two to four hours of usage before recharging for three hours). The batteries are easy to install, and you don't lose your work while installing them. All PowerBooks have the Intelligent Power Management feature that first appeared in the Mac Portable, with a clear readout of the amount of power still available.

The pricing is \$2,499 for the PowerBook 100, \$3,199 for the PowerBook 140, and \$4,599 for the PowerBook 170. The optional modem (for 100 and 140 users) is \$349, and the Apple-Talk Remote Access program is

free with the PowerBooks (\$199 for anyone else). If I could afford it I'd buy the 170, but for now, the most attractive PowerBook for my needs is the 140. I suspect this model will be very popular among Mac addicts, but Apple expects the low-end PowerBook 100 to sell in the largest quantities, which is why Apple entered into a partnership with Sony

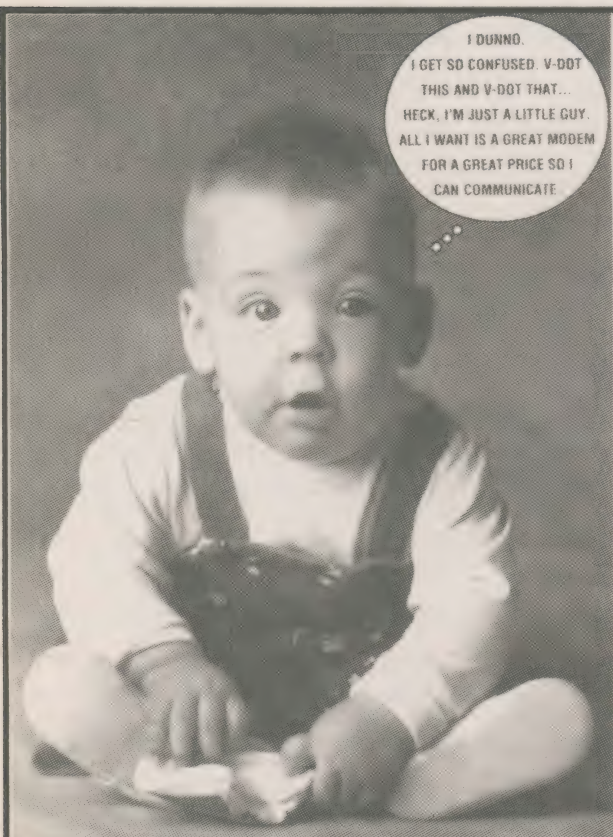
to manufacturer the low-end model (based on Apple's design).

Information Here, There, and Everywhere

Unlike a DOS laptop which is usually constrained to its built-in hard disk, the Mac PowerBooks can be used just like any Mac — you can connect a PowerBook directly to SCSI hard disks and other devices, such as scanners and CD-ROM drives. The SCSI connector is smaller than the usual Mac SCSI connector, but cables are available for connecting regular SCSI devices. You can also connect a PowerBook to another Mac through the SCSI interface, and the PowerBook's internal hard disk acts like an external hard disk to the other Mac. This makes file transfer as easy as dragging and dropping an icon from one folder to another.

Other laptops and notebooks have 2400bps modems, so it is no big deal that the PowerBook 170 includes an internal 2400bps modem with 9600bps fax send capability — until you factor in the system environment for preparing and sending faxes. The Mac is ideal for creating any type of page and then rendering that page for a fax modem, with excellent quality for graphics and text (using outline fonts for text). DOS-based fax programs typically send fax messages in the Courier font with no graphics (except

I consider the PowerBooks to be the first laptop computers that can actually be used on your lap without incurring pain in your wrists.



I DUNNO.
I GET SO CONFUSED. V-DOT
THIS AND V-DOT THAT...
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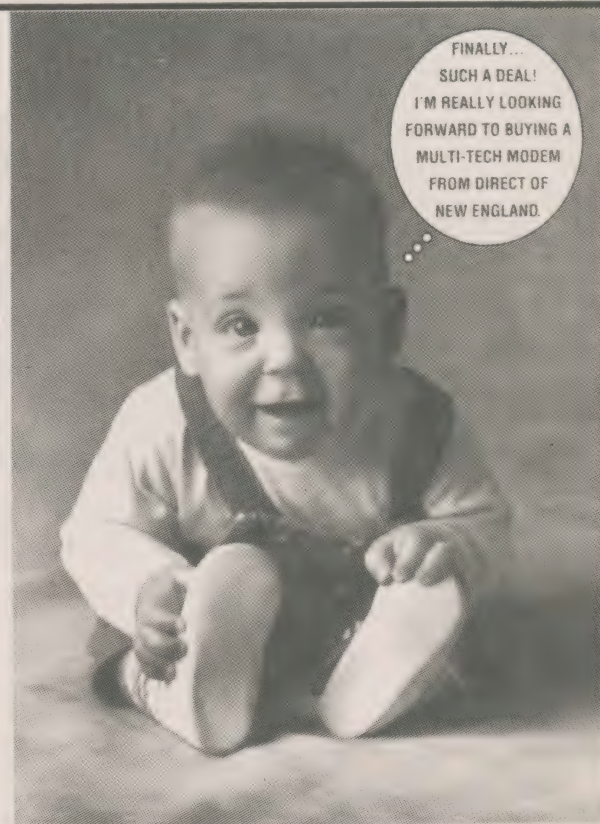
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perhaps a scanned image — but how do you connect the scanner to the laptop?).

The network connection can't be overstated. With a DOS laptop, you usually can't connect to a network without disrupting the network. Forget about remote connection via modem.

The PowerBooks offer both: direct connection to an AppleTalk LocalTalk network, and remote connection via modem to an AppleTalk network. Once you are connected, your PowerBook appears just like any other Mac on the network. With System 7 file sharing, you can easily share files with your

PowerBook and other Macs. You can also run Farallon's Timbuktu/Remote to remotely control any Mac on a network from a PowerBook.

I'm ready to use this feature on the road — connect to my home network from anywhere in the world, and run Timbuktu to launch programs on my home machine. I could search for text on my home computer, copy that text to the Clipboard, and paste it into my application on the PowerBook. I would have instant access to all my files from anywhere.

Pocketfuls of Accessories

The PowerBooks are not perfect. The displays don't do color, which makes them less attractive for presentations, and there is no way to send the video signal out to another monitor or video recording device. Rumor has it that Apple was afraid that the PowerBooks would cannibalize Mac Classic sales if a PowerBook could be connected to an external monitor.

Several display manufacturers are designing special monitors that can be connected to the SCSI port. I expect the display to be slower than what you would get if the PowerBooks provided a video out signal. I'll reserve judgement until I get a chance to try these products firsthand.

There is not much room inside for adding RAM, which means performance will be sluggish with System 7. The PowerBooks are even more constrained in RAM and storage options than the Mac Portable. Still, several vendors plan RAM upgrades, and Apple will offer two-megabyte and four-megabyte upgrades for the PowerBook 140 and 170.

With pen interfaces all the rage, the PowerBooks fall short of being technology leaders by not having such an interface. However, the PowerBooks offer the best mouse-like interface in a laptop configuration. The two-button track-ball is easy to use and far less

clumsy than a mouse in your lap. Compared to the PowerBook's integrated trackball, the attachable mouse/trackball devices for DOS portables are far more contrived — with some, the carrying case doesn't close right unless you remove the device.

With everything Apple has put into the PowerBooks, there is still plenty of room in the market for abundant accessories. You can connect external devices through SCSI, but you need battery-operated devices while on the road. Look for a small, battery-operated drive from vendors such as Liberty Systems (Santa Clara, Calif.). You

also need a special SCSI cable for the new smaller connector.

Perhaps the most interesting new product will be a solar-powered power pack from Microtech (East Haven, Conn.) that can run the PowerBook and an external drive.

One PowerBook accessory at the top of my wish list is the TelePort Lap-Fax from Global Village (Menlo

Park, Calif.), an internal modem with 2400bps communication and 9600bps fax send and receive capability. This device can wake up the PowerBook to receive a fax. Global Village will also introduce a 9600bps internal modem for network connection. Dayna (Salt Lake City, Utah) will introduce a SCSI-based Ethernet connection.

Outbound With a Notebook

As Apple's official notebook computer product line, the PowerBooks are in a class by themselves. The Outbound (Boulder, Colo.) Notebook is the most likely competitor. The Outbound is slightly less in weight (about 6 1/4 pounds) than a 140 or 170, and the price of the System 2030 configuration is less at \$3,999 than the 170. However, a severe drawback of the Outbound is that it uses older Mac Plus ROMs. Although you can install more than four megabytes of RAM in an Outbound, it can address only the first four megabytes due to the older ROMs — the rest can only be used as a RAM disk. Even if you upgrade the unit to use a real 68030 (it uses a 68ECO30 that does not offer a memory management unit and therefore does not support virtual memory), you still can't use Apple's virtual memory feature in System 7 due to the older Mac ROMs. However, Outbound says that there is no other problem in running System 7 or applications.

Like the PowerBooks, the Outbound Notebook can be attached to another Mac and used like an SCSI disk (when the software becomes available to do

SEE NEXT PAGE

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03 ☐ Manufacturing other
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05 ☐ Transportation
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07 ☐ Utilities
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13 ☐ Legal
14 ☐ Education
15 ☐ Data processing, computer service
16 ☐ Government
17 ☐ Consultant
18 ☐ Wholesale/Distributor
19 ☐ Research/Development
20 ☐ Engineering/Architecture
21 ☐ Other business services
22 ☐ Advertising
23 ☐ Sales/Marketing
24 ☐ Personnel Placement
25 ☐ Entertainment
26 ☐ Other (please specify) _____
- 22 Title (check one only)
01 ☐ Chairman/Pres./Owner/Partner
02 ☐ VP—All
03 ☐ Controller/Treasurer
04 ☐ Director
05 ☐ General Manager
06 ☐ Business Manager
07 ☐ Project Manager Chief/Group Leader
08 ☐ Prod./Merch. Manager
09 ☐ Manager/Supervisor not listed above
10 ☐ Data Base Administrator
11 ☐ Other Administrator
12 ☐ Physician
13 ☐ Accountant
14 ☐ Attorney
15 ☐ Consultant/Advisor
16 ☐ Bus. Microcomputer Specialist
17 ☐ Systems Analyst
18 ☐ Writer
19 ☐ Coordinator
20 ☐ Programmer
21 ☐ Engineer
22 ☐ Educator
23 ☐ Representative
24 ☐ Other (please specify) _____
- 25 Company Size (check one only)
A ☐ Under 10 employees E ☐ 250-999
B ☐ 10-24 F ☐ 1000-2499
C ☐ 25-99 G ☐ 2500-4999
D ☐ 100-249 H ☐ Over 5000
- 26 Department (check one only)
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09 ☐ Marketing
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11 ☐ Personnel
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14 ☐ Research & Development
15 ☐ Sales
16 ☐ Other (please specify) _____

Does your firm have personal computers?

☐ Yes: If yes, please indicate quantities below. Complete both columns.

☐ No

A: Number currently owned B: Number plan to purchase within next 12 months

- A _____ B _____ IBM PC/XT Compatible
_____ IBM PC/AT (286) Compatible
_____ Macintosh Classic or SE
_____ Macintosh LC
_____ Macintosh IIcx, IIsi, or IIfx
_____ Macintosh IIx
_____ Macintosh Portable
_____ Amiga 500
A _____ B _____ Amiga 2500 or higher
_____ Atari ST
_____ NeXT Workstation
_____ Sun SPARC system
_____ Other (Please Specify) _____

30 Please estimate your department's budget for computer hardware, software and supplies for the next 12 months:

- A ☐ Over \$500,000
B ☐ 250,000 to 499,999
C ☐ 100,000 to 249,999
D ☐ 50,000 to 99,999
E ☐ 25,000 to 49,999
F ☐ 10,000 to 24,999
G ☐ Under 10,000

31 Through what channels will your department purchase its hardware software and supplies? (Check as many as apply)

- A ☐ Computer Retail Store
B ☐ Distributor/Wholesaler
C ☐ Value Added Reseller
D ☐ Consultant
E ☐ Mail Order
F ☐ Manufacturer
G ☐ Other _____

In which of the following ways are you yourself involved with personal computers, accessories and supplies?

- ☐ Use them
☐ Recommend them
☐ Establish specifications
☐ Approve purchase
☐ Acquire them
☐ Evaluate or select suppliers
☐ Train people to use
☐ Sell them
☐ Develop or manufacture
☐ No involvement
☐ Other involvement (please specify) _____

32 For how many personal computers or microcomputer systems do you have this involvement? (Check one only.)

- A ☐ 1-3 D ☐ 25-49
B ☐ 4-9 E ☐ 50-99
C ☐ 10-24 F ☐ 100 or more

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Macfocus

FROM PREVIOUS PAGE

this). The Notebook uses one audio connector that doubles as an input and output connector. An internal microphone is also provided.

One nice feature of the Outbound Notebook not available in the PowerBooks is the ability to remove the internal drive. With this feature, several users could share a Notebook simply by removing and installing personal drives.

LAN on the Run

Whether you use the Outbound Notebook or any of Apple's PowerBooks, the network connection makes all Macs equal in one regard: the ability to access information on another Mac. Now, imagine if that network were

wireless! Apple is already working on a wireless AppleTalk network that would let users wander through the halls and cubicles and conference rooms of an office and still be connected directly to the network.

Apple may yet have more PowerBooks or similar devices to introduce in the coming months, including a pen-based system. For now the PowerBooks are in a class by themselves, offering a level of convenience not yet found in any laptop or notebook computer. If I were to choose between a Classic and a PowerBook, I'd choose the PowerBook because it can do everything a Classic can do, and I can still carry it on the road.

Not only can I carry it, I can also use it to write as I bounce around in the back seat of a fast-moving car. The PowerBooks are perfect for typing those long sentences while moving at top speed down Rte. 1. As Jack would write, if only he had a PowerBook with him on his mad dash across the continent:

So in America when the rising sun goes down and I sit on the old broken-down

river pier watching the long, long skies over Gualala and sense all that raw CPU power that rolls in one unbelievable huge bulge over to Japan, and all that electronic-mail flowing, all the people computing in the immensity of it, and in Cupertino I know by now the hardware designers must be crying in the land where they let designers cry, and tonight the stars'll be out, and

don't you know that Apple is Pooh Bear? The evening star must be drooping and shedding her sparkler LCDs on the land of NEC, which is just before the coming of complete night that blesses the earth, darkens all rivers, cups the peaks and folds the final shore in, and nobody, nobody at IBM knows what's going to happen to DOS besides the forlorn rags of growing old, I think of the Mac PowerBook, I even think of

Old Mac Portable, the laptop I could never carry for too long, I think of the Mac PowerBook.

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When not steering around curves, cows, and sheep on Highway One, Tony co-edits several newsletters with his partner Cheryl Rhodes, including the *Bové & Rhodes Inside Report on Multimedia* and the *MacroMind Developer Letter*. For details, contact him on MCI Mail (TBOVE), CompuServe (70105,722), or AppleLink (D0493), or by writing to Bové & Rhodes, Box 1289, Gualala, CA 95445.

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Both Systems Include: 2 MB RAM, 3 1/2 1.44MB floppy, AST Super-VGA Color Display, MicroSoft Windows 3.0, MicroSoft Mouse, mousepad, MS-DOS 3.30



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IBM PS/2 Top Models Take Price Hit

IBM's former top of the line PS/2 models took serious cash hits this week. Traders reported that the encroachment on IBM's turf is primarily due to strong clone activity and the loss of buyers' interest in IBM technology that is easily outdistanced by the state-of-the-art clones. Every computer has its time to shine and now that IBM has displaced these models from the top and near top of the market of their own machines, and clones are mostly faster, smaller and built on the industry-standard bus, the older PS/2's lose their luster and their price edge. Nevertheless, these computers still command a premium over the clones that are displacing them.

Mac CX In Demand

This was another week with strong activity at the Mac Desk as the CX continues to be a favorite among Mac buyers. The CX and its potential to be upgraded to whatever Apple is doing next has made the CX the machine of choice for the moment. The Laserwriter IINT dropped \$50 to end the week at \$1800.

BusinessLand/JWP Auction Offers Lesson

The impending massive auction

of leftovers, B-stock, trade-ins, demo machines and all sorts of other leftovers by the BusinessLand/JWP facility outside Boston has been attracting market players from all over the country. The phones on the Big Board have been active with traders seeking last-minute values of the auction fodder and players are coming in from all over the U.S.A. to participate in the auction. The need for an auction and the size of the inventory is a telling lesson about the computer distribution/retail market. BusinessLand/JWP has clearly not been operating with a strategic plan for the disposition of excess hardware. Had a strategic recycling plan been in place with a standing disposal plan, there would have been no need for the auction, and the displaced hardware would not be choking the computer chain.

Are 286 Computers Brain Dead?

No, probably not. The 286 computers aren't suddenly stupid and for most users represent enough computer power for the majority of their work.

The following prices are for the week ending October 11, 1991.

The BoCoEx Index of Used Computer Prices

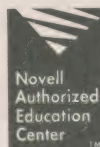
Machine	(\$) Close	(\$) Ask	(\$) Bid
IBM AT 239 20MB	550	650	500
IBM AT 339 30MB	750	1000	700
IBM PS/2 Model 50 20MB	950	1000	800
IBM PS/2 Model 50Z 30MB	1100	1200	1000
IBM PS/2 Model 55SX 60MB	1450	1500	1400
Compaq Portable III 20MB	750	900	700
Compaq Portable 286 20MB	1100	1350	1000
Compaq SLT-286 40MB	1400	1700	1400
Compaq LTE-286 20MB	1100	1200	1000
Compaq LTE-286 40MB	1450	1500	1350
Compaq Deskpro 286 40MB	800	1000	700
NEC PowerMate SX+ 40MB	1200	1350	1100
NEC PowerMate SX+ 80MB	1400	1400	1250
Zenith SupersPort-286 20MB	950	1000	875
Zenith TurbosPort-386 40MB	1600	1900	1600
Macintosh SE 40MB	950	1100	950
Macintosh SE/30 40MB	1875	2000	1800
Macintosh SE/30 80MB	2200	2500	2100
Macintosh IIX 80MB	3550	3600	3500
Macintosh IICX 80MB	3300	3600	3200
Apple Imagewriter II	250	350	200
Apple Laserwriter IINT	1800	2500	1800
H-P Laserjet	425	500	400
H-P Laserjet II	925	975	800
Toshiba T-1200HB 20MB	750	900	700
Toshiba T-1600 40MB	1000	1300	950
Toshiba T-3100 20MB	915	1050	850
Toshiba T-3100 SX 40MB	1900	2300	1900
Toshiba T-5100 40MB	1400	1700	1300

BoCoEx Index prices are based on complete systems with keyboard, monochrome monitor and adapter, less the value of any software or peripherals. Call BCE, 617/542-4414; Buyer's Hot Line, 800/262-6399; fax, 617/542-8849. BCE's Fax Yourself Information is 617/542-2345. Ask for extension 300 for BoCoEx Index.

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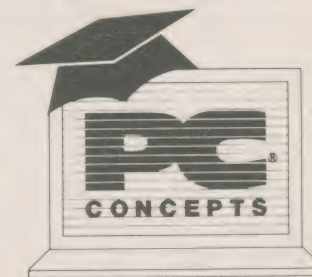
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Saturday, November 30, 10 AM - 4 PM
Lantana Complex-Randolph, MA
Routes 128 and 28 in Randolph

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Please Note: Boston Computer Society (BCS) listings are courtesy of the BCS. BCS events are for members only; non-members are invited to attend one meeting before joining the society. BCS headquarters are at One Kendall Square, Cambridge, MA 02139. Telephone 617/252-0600.

November 6

BCS Business; Accounting & Finance Subgroup

"Accpac's Simply Accounting for Windows." Simply Accounting from Computer Associates is one of the first accounting packages available that's compatible with Windows 3.0. 7 p.m., The BCS Center, Building 1400, One Kendall Square, Cambridge, Mass. Contact Bob Traupe at 508/881-6321.

November 7

BCS IBM

"Alpha to Word." Alan Ashton, president of WordPerfect Corp., shows off WordPerfect for Windows. Selwyn Rabins from Alpha Software Corp. presents the changing database market. 8 p.m., Aquinas Junior College, 15 Walnut Park, Newton, Mass. Contact BCS IBM Office at 617/964-2547.

November 8

The Turing Test

The first round of The Turing Test of machine intelligence, pitting human against computer. The Turing Test re-

CALENDAR

Meeting times and locations may change at the last minute; call first for confirmation.

We welcome notices of upcoming events for our Calendar. Notices must be received by the second Friday of the month prior to publication. Please mail information to: Calendar, Boston Computer Currents, 4 Chrysler Road, Natick, MA 01760. Or send your notice via MCI Mail to "MZIENTARA." Or fax to 617/593-2682.

quires a computer to emulate human behavior (via terminal) so well that it fools judges into thinking its responses are from a person. Administered by the Cambridge Center for Behavioral Studies and The Computer Museum, where it will be held. For details, call the Computer Museum at 617/426-2800.

November 11

BCS Worcester

"Computers and The Law!" Susan M.F. Dechant presents computer law, high-tech law, legal issues redevelopment, protection, licensing, and exploitation of technology. 7 p.m., Clark University, 950 Main Street, Higgins Bldg., Persky Hall, Worcester, Mass. Contact Elaine Baskin at 508/755-2904.

Connections '91

A two-day (Nov. 11-12) conference presented by Wave Technologies

Training, Inc. (St. Louis, Mo.) features three tracks: "LANs & Connectivity"; "Windows: A Clear View"; and "Downsizing: Mainframes on the Desktop." Register at least three days prior to the conference to receive advance rate: \$295 both days, \$195 one day. Otherwise: \$345/\$245 at the door. Call 800/462-6005.

November 12

"An Inside Look at FDDI"

A two-day seminar (Nov. 12-13) offered by Trellis Communications Corp. (Manchester, N.H.), to be held at the InterOperability Lab at the University of New Hampshire, Durham, N.H. Fee: \$695. Call Trellis at 603/668-1213.

"PC-Based Data Acquisition"

A two-day seminar (Nov. 12-13) offered by Data Translation, 100 Locke Drive, Marlboro, Mass. Fee: \$1,295. Call 508/481-3700 x687.

November 13

Northeast Computer Show

New England's longest-running computer exposition and conference for regional and national suppliers of PC hardware, software, desktop publishing, peripherals, accessories, add-ons and office automation products and services. Nov. 13-15, World Trade Center, Boston. Co-sponsored by The Interface Group (Needham, Mass.) and the BCS. Three-day conference: \$195. One-day conference: \$95. Three-day exhibits only: \$25. Call 617/449-8938.

BCS General Meeting

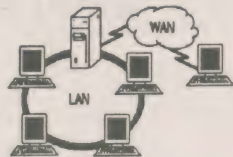
Borland's CEO, Philippe Kahn, is back in Boston presenting new directions in databases. Borland and Ashton-Tate may have cornered the market in programmable databases. Sneak previews of Borland's new products. Boston Marriott, Ballroom, Copley Place, Boston. 7 p.m. Contact BCS Office, 617/252-0600.

Ventura Users of Greater Boston

"OCR Technology" will be the topic at the monthly meeting of the Ventura Users of Greater Boston (VUGB). Also, Norton Desktop for Windows will be demonstrated. To be held at Wentworth Technical School, located on 4th floor, Xerox Building, 191 Spring Street, Lexington, Mass. For more information, call 617/275-3592.

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Hands-on Lab Courses

DOS I	11/14/91
DOS II	11/21/91
Lotus 1-2-3 Macros	11/14/91
Memory Management	11/21/91
Introduction to PageMaker (2 session course)	12/12/91 - 12/19/91
Introduction to WordPerfect (2 session course)	12/12/91 - 12/19/91

Seminar Courses

Introduction to Turbo Pascal	11/14/91 - 12/19/91
(continuation of 6 session course started 10/24/91)	
Introduction to LANs	11/14/91
Introduction to Windows	11/14/91, 12/19/91
Introduction to Paradox	11/14/91
(continuation of 2 session course started 10/31/91)	
Introduction to Q & A	11/21/91
Fonts	11/21/91
DOS III	12/12/91
Database Design (2 session course)	12/12/91 - 12/19/91
PC Tools & other Utilities	12/12/91
DOS IV	12/19/91

To register for a Workshop, call the IBM office at (617)964-2547 and leave your name, phone number and the title of the Workshop you wish to attend. Fullpayment (cash or check) should be made the night of the Workshop. Workshop prices: Hands-on Lab courses \$30 per session; Seminar courses \$25 per session.

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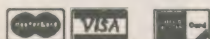
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"Introduction to the PC"

A one-day hands-on introductory seminar offered by Systemetrics, Inc., Renaissance Park, 35 Sockanosset Crossroad, Cranston, RI. Fee: \$195. Call 401/275-2200.

November 14

ASM, DPMA Joint Meeting

"Information Technology in the Year 2000," to be presented by representatives from The Gartner Group at the Rhode Island Chapters of the Association for Systems Management (ASM) and Data Processing Management Association (DPMA) joint monthly dinner meeting. Ramada Inn, Seekonk, Mass. Dinner at 6:30. Contact Mark Gee at 401/273-4700.

November 18

"Introduction to dBase IV"

A one-day hands-on introductory seminar offered by Systemetrics, Inc., Renaissance Park, 35 Sockanosset Crossroad, Cranston, RI. Fee: \$195. Call 401/275-2200.

November 19

Association for Women in Computing
The Greater Boston Chapter of the Association for Women in Computing

monthly dinner meeting will include a site visit to Autographics in Burlington, Mass. Meeting at 6:30. For more information, contact Mary Delichatsios at 617/762-4300 x2954.

BCS Networking; Internet Subgroup

"What the Internet Means to You." Attaching to the Internet means access to a wealth of information by subscribing to "newsgroups." Online information from astronomy to zoology can be delivered to your desktop. Find out how to join the groups at this meeting. 7:30 p.m., MIT, Building E51, Room 328, Cambridge, Mass. Contact Ken Kennedy at 603/427-0775, eves.

November 20

"Windows Intermediate"

A one-day seminar offered by Suffolk University School of Management, Center for Management Development, One Beacon St., Boston. Fee: \$245. Call 617/573-8305.

November 21

Society for Information Management

"Total Quality Management Within IS," presented by Warren Harkness, Director, Information Services, Bose Corp. Luncheon meeting, 12-2 p.m., Anthony's Pier 4, Boston. For fees and reservations, call 617/237-1570.

DPMA, Pilgrim Chapter

"Information System Trends and Strategies for the 1990s," to be pre-

sented by Tim Mead, Editor-in-Chief, *Datamation Magazine*, at the Pilgrim Chapter of Data Processing Management Association (DPMA) monthly dinner meeting. Holiday Inn, North Main Street (Rte. 28), Randolph, Mass. Dinner 6:30 (\$20). To make reservations or for more information, contact Bill Kelly at 508/359-5479.

BCS Publishing

"Redesigning the Globe." The *Boston Globe* is the largest circulation newspaper in New England. Come and see a *Globe* designer show how the paper went through its last redesign. 7 p.m., MIT, Building E51, Room 144, Cambridge, Mass. Contact David Field at 508/356-5159.

November 25

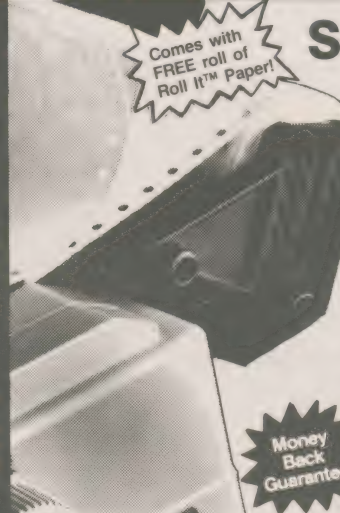
BCS IBM PC, Women's Interests Group

"Electronic Bulletin Boards" will be the topic at the BCS Women's Interests Group monthly meeting. 7 p.m., at BCS IBM PC Group Office, 188 Needham St., Suite 230, Newton, Mass. Contact Lucy Rakov at 617/969-4556.

November 26

BCS Business

"PC LAN Integration" by Tom Wood, senior industry analyst for Business Research Group (Cahners Publishing). 7:30 p.m., 128 Entrepreneurs' Center, 200 Fifth Ave., Waltham, Mass. Call Jim Budwey at 617/769-9750.



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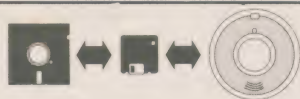
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never did see the point of faxing information. I mean, isn't the U.S. Mail good enough?

Well, okay, but what about modems? They cost a fraction of the price of a fax machine, and they send you an electronic file, which is ten times more useful than anything you're going to get on paper. After all, a computer file can be changed without the sender knowing it, or thrown away without bringing up ethical questions of garbage vs. recycling. What's more, I still haven't found a good text-search program that works on hard copy.

Nevertheless, faxes have managed to become commonplace despite my objections. That fact was brought home to me a couple of weeks ago, when I got a call from my cat's lawyer. She needed to send me a brief concerning a lawsuit with an irate Doberman. She wanted to fax it!

"Fax it?" I asked. "Didn't you write this on your computer?" She admitted that she had. "And don't you own a modem?"

She did — she got it on sale with a monogrammed fountain pen and a set of dishes — but she admitted to me that she had never used it. "It's easy," I explained, slipping into that patronizing voice I'd used in my years as a technical support rep. "Just make sure your parity is none, you have one stop bit, and auto LF is turned off."

"Auto elf?"

"No, auto LF. It means that you start a new line every time you start a new line. You don't want that."

As I said, I never could figure out why more people don't use communications programs. Anyway, we eventually got everything set up. "Okay," I said triumphantly, "give 'er my phone number and let 'er dial... No, wait, I didn't mean right n....!"

It was too late. We were both treated to the most ear-shattering noise known to modern humanity: a modem on the other end of the line.

To make a long story short, she eventually sent me the file. After perusing it, I was of the conclusion that either she has an extremely exotic word processor or that the Kermit protocol had been written by Big Bird. Whatever the problem, I knew that the time had come to buy a fax board.

Three days later, I was the proud owner of a FaxAlife Fax and Modem InterCard and Three-Way Serial Mouse Board. Installing the card was easy. But after the card came the software. And after the software came all of the other software. You see, in addition to installing the FaxAlife's own software,



"ALRIGHT, NOW WE NEED SOMEONE TO PLAY THE PART OF THE GEEK."

you have to set up your word processor and other applications to print files that FaxAlife can understand — and FaxAlife doesn't understand much.

In order to turn your work into something that the FaxAlife can send, your word processor must think that it's printing to a Subtronic Nanoline-3G, a 3-pin dot matrix that went out of fashion with the coming of 8-bit operating systems. Not surprisingly, my word processor doesn't ship with a Subtronic driver, but the FaxAlife comes with instructions for writing one in assembly.

And writing a driver isn't the end of your problems. If your word processor sends its data to a parallel port, it's not going to end up on someone else's fax machine (and unless you're unfortunate enough to own a Subtronic Nanoline-G, you won't get much of a printout, either). When you print an outgoing "fax," you must send it to a

file on your hard disk. If your word processor can't already do this, you must use the FaxAlife redirection utility, a 300K TSR that won't work with any another resident programs, including COMMAND.COM.

It took about a week, but I finally got a Subtronic printer file on disk — and was ready to try sending a fax. I eagerly loaded the main FaxAlife software, watched the animated logo of a fax machine being swallowed by a computer, and told the program that I wanted my new Subtronic printer file to be sent to my friend Deke, who works in a large office. I gave the "Go" command, and waited eagerly for my fax board to call out.

Five minutes later, I was still waiting. I picked up the documentation, hoping to find something useful. I was reading the part about the built-in ten minute delay when the fax board

started to make sounds like a modem. It was sending the fax!

I phoned Deke as soon as I got back control of my phone line. "Did you get the fax I just sent you?"

"The fax you just sent me? Call me back tomorrow and I'll tell you."

I was somewhat taken aback. "I thought faxes were instantaneous."

"They are," Deke explained, "to the fax machine in the mailroom. It takes about a day for them to get up here."

I called back the next day, and Deke had gotten the fax. "So this is the one from you?" he said. "It's hard to tell, what with the three-point type and all."

"Three-point type?" I cried. "My word processor was set for ten characters per inch!"

"That makes sense," he said, "if you put a lot of spaces between the characters."

I soon discovered that he was right — painfully right. Whether it was the Subtronic driver or the FaxAlife software or the board itself, every fax I sent was printed at about a quarter of its intended size.

This was a job for FaxAlife technical support. I called their number; the line was busy. I wrote them a letter; it never arrived. I sent them a fax; they couldn't read it. I finally got through by calling them an hour before they opened and waiting for someone to come in.

"Yes, that's absolutely right," that someone told me, in an annoyingly patronizing voice, after I'd explained my problem. "When sending a fax, the FaxAlife shrinks the image by seventy-five percent. We make up for it on the other end, though; when receiving a fax, the board increases the image four-fold."

I thanked him and hung up. Almost immediately the phone rang. It was my cat's lawyer. "Hi. You never commented on that last brief I sent you; I guess everything's okay. I've got an affidavit that you should look at. Now, are you finally ready to receive a fax?"

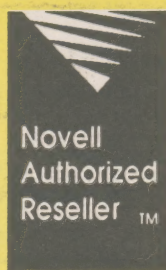
And they say that this technology brought down the Russian Communists?

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Lincoln Spector is the author's real name, appearing on both his driver's license and his birth certificate. An Assistant Editor at PC World, Lincoln can be reached via MCI mail as LSPECTOR.

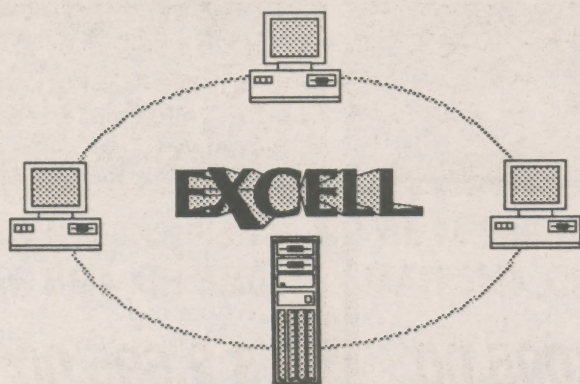
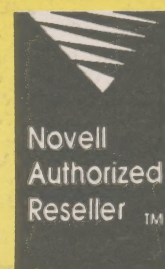
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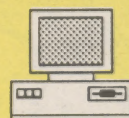
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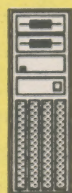
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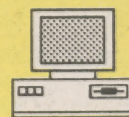
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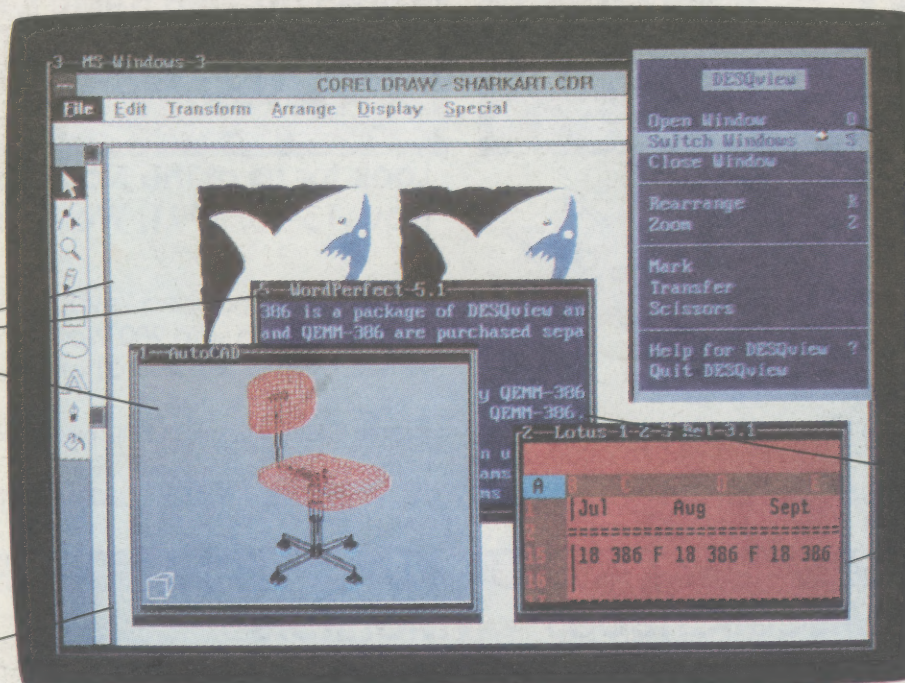
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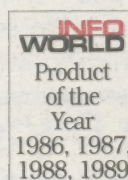
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